COMMERCIAL EDUCATION

METHUEN'S COMMERCIAL SERIES

EDITED BY H. DE B. GIBBINS, LITT.D., M.A.

BRITISH COMMERCE AND COLONIES FROM ELIZABETH TO VICTORIA. By H. DE B. GIBBINS, Litt.D., M.A. *Third Edition.* 2s.

COMMERCIAL EXAMINATION PAPERS. By H. DE B. GIBBINS, Litt.D., M.A. 1s. 6d.

THE ECONOMICS OF COMMERCE. By H. DE B. GIBBINS, Litt.D., M.A. 1s. 6d.

FRENCH COMMERCIAL CORRESPONDENCE. By S. E. BALLY, Master at the Manchester Grammar School. *Second Edition.* 2s.

GERMAN COMMERCIAL CORRESPONDENCE. By S. E. BALLY. 2s. 6d.

A FRENCH COMMERCIAL READER. By S. E. BALLY. *Second Edition.* 2s.

A GERMAN COMMERCIAL READER. By S. E. BALLY, M.A. *Crown 8vo.* 2s.

COMMERCIAL GEOGRAPHY, with special reference to the British Empire. By L. W. LYDE, M.A. *Third Edition.* 2s.

A PRIMER OF BUSINESS. By S. JACKSON, M.A. *Third Edition.* 1s. 6d.

COMMERCIAL ARITHMETIC. By F. G. TAYLOR, M.A. *Third Edition.* 1s. 6d.

PRÉCIS WRITING AND OFFICE CORRESPONDENCE. By E. E. WHITFIELD, M.A. 2s.

A GUIDE TO PROFESSIONS AND BUSINESS. By H. JONES. 1s. 6d.

THE PRINCIPLES OF BOOKKEEPING BY DOUBLE ENTRY. By J. E. B. M'ALLEN, M.A. *Crown 8vo.* 2s.

COMMERCIAL LAW. By W. DOUGLAS EDWARDS. 2s.

COMMERCIAL EDUCATION

IN THEORY AND PRACTICE

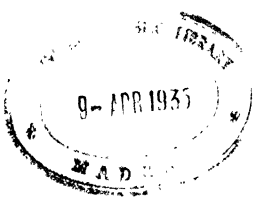
A 64

REFERENCE

BY

E. E. WHITFIELD, M.A.

LATE LECTURER AT THE CITY OF LIVERPOOL SCHOOL OF COMMERCE



METHUEN & CO.
36 ESSEX STREET W.C.
LONDON
1901

PREFACE

'WHAT is meant by the term 'Commercial Education'? How would it differ in its aims, and in the subjects taught, from the education hitherto commonly proposed in an English High School?" is a question which would be found in an Examination Paper set several years ago for Teachers by the Cambridge Syndicate. Here is a term much used of a thing little understood; which some, although supposing they understand, find difficult to define, and others either exaggerate as a cure for all our woes or depreciate as a Continental fad.

In the year 1896 the present writer undertook to prepare a General Introduction to the Publishers' "Commercial Series," and the book now issued will fulfil that function. Whilst preparing a Paper for the London Congress of 1897, he decided to attempt to do for Teachers in particular what the *Introduction to Commercial Science* (first published in 1892 by Messrs. Rivington and Percival) aimed to do for Pupils. The conception of the book therefore enlarged.

It is hoped that some Teachers will be helped in seeing their way through such requirements as concern them; that some parents may find aid in determining the sort of education which they should seek for their

sons destined for a career in Business; and that some self-taught students may meet with guidance as to the direction in which they should put forth their energies for success in life.

The writer is indebted to various correspondents, several of whom have been his pupils, for information as to the work done by young clerks in modern establishments. Hints are offered throughout as to the bearing, if any, of ordinary school work on such duties.

An epoch—to the creation of which the results of the Franco-German War largely contributed—has been running its course for now nearly one whole generation. An endeavour is here made to trace those features of the new order of things to which British school education is gradually and surely being conformed.

FOREGATE ENGINEERING WORKS
STAFFORD, *June*, 1901

CONTENTS

PAGE

INTRODUCTION 1

CHAPTER I

ORGANISATION OF COMMERCIAL INSTRUCTION . . . 41

CHAPTER II

STUDY AND TEACHING OF LANGUAGES AND LITERATURE 70

CHAPTER III

STUDY AND TEACHING OF MATHEMATICS, NATURAL SCIENCE, AND DRAWING 91

CHAPTER IV

PRINCIPLES OF BUSINESS AND ITS MODERN FEATURES . 107

CHAPTER V

ORGANISATION AND COMMERCIAL MANAGEMENT OF INDUSTRIAL CONCERNS 128

CHAPTER VI

THE THEORY OF TRADE: ITS ORGANISATION AND PROMOTION 143

CHAPTER VII

ECONOMICS AND MECHANISM OF TRANSPORT . . . 163

CHAPTER VIII

ECONOMICS AND FRAMEWORK OF TAXATION . . 176

CHAPTER IX

PAGE

ECONOMICS OF MONEY—BANKING—STOCK EXCHANGES—INSURANCE 187

CHAPTER X

BOOK-KEEPING AND ACCOUNTS IN THEORY AND PRACTICE 213

CHAPTER XI

MERCANTILE OFFICE WORK 228

CHAPTER XII

THE FORMATION OF CHARACTER, AND THE CONDITIONS OF SUCCESS 243

APPENDICES

I. MODEL TIME TABLES 257

II. SAMPLE GOUIN SERIES IN GERMAN AND FRENCH 258

IIIA. EDUCATIONAL AND EXAMINING BODIES . . 263

IIIB. LANCASHIRE COUNTY COUNCIL REGULATIONS FOR COMMERCIAL SCHOLARSHIPS . . . 264

IIIC. LANCASHIRE COUNTY COUNCIL EXAMINATION PAPERS FOR COMMERCIAL SCHOLARSHIPS . 265

IIID. LONDON CHAMBER OF COMMERCE EXAMINATION PAPERS 275

IIIE. LIVERPOOL SCHOOL OF COMMERCE EXAMINATION PAPERS 298

IIIF. LIVERPOOL SCHOOL OF COMMERCE: PUPIL'S WORKING OF A COMMERCIAL PRACTICE PAPER . 303

INDEX 309

9- APR 1935

COMMERCIAL EDUCATION

INTRODUCTION

I.

THE main function of that which is called "liberal" education, secured by instruction in subjects the traditional merit of which is found in the training of "faculty," was described by Mr. Gladstone, before a Flintshire Technical Instruction Committee, as being "to make the human mind a supple, effective, strong, and available instrument for whatever purpose it might be required to be applied to." The question, to which this only tenable view of the greater part of Education leads up—whether training in forms of knowledge qualified as "practical" presupposes, for real success, adequate preliminary instruction in those supremely "human"—admits of no hesitating answer. The teacher, however competent, of any subject made prominent in these pages, if he is to succeed, must have pupils intellectually fit to receive his instruction.

This confession made, the claims of academic training in branches of knowledge called "commercial"—by which we simply mean, those to which representative business men attach importance—will scarcely be questioned by any educationist acquainted with the economic circumstances of the time. All that may fairly excuse anxiety in respect of it is the need of securing that it shall merit the confidence of not only the mercantile but of the educational world. "The cardinal point of this topic," Lord Goschen has said, "is that you take an intellectual interest in your work, and be

insisted on the now generally credited fact that "We shall not hold our own unless we develop the commercial education of this country." To *develop;* because there is some truth in a remark made by an eminent German, referred to by Mr. S. Webb in a Commercial Congress paper, "The Englishman enjoys the best commercial *education* in the world: what he needs is more *instruction* in commercial subjects."

It is necessary clearly to discriminate Commercial instruction, which has to do with Exchange, from Industrial training, which is concerned with Production: each has its peculiar function. Nevertheless, Industrial students whose opportunities or ambition render it probable that they will sooner or later be employers of labour require some Commercial instruction; whilst ordinary Commercial students doubtless do well to acquaint themselves with the management of Industrial concerns, and, of course, with the properties or composition of the commodities with which they may have to trade. We shall consider how Commercial instruction, while it naturally associates itself more with Secondary than with Primary education, can to some extent fitly be given in Higher Elementary schools, which provide education for the more promising children of Industrial workers, who may find themselves in a Commercial establishment, immediately after the termination of their school course; and further, how preparation for advancement of those who, having received their primary education wholly in an ordinary elementary school, enter a Commercial house for purely mechanical work of prolonged duration, may be aided by continuation classes, devoted to elucidation of work that goes on under their daily observation but cannot be entrusted to them,—which they have practically no means of learning during business hours.

The Technical Education Committees of County Councils and County Boroughs, which operate under the Technical Instruction Acts of 1889, 1891, and the Customs and Excise Act of 1890, in their strenuous endeavours, during the last eleven years or thereabouts, rapidly to provide in this country instruction in Industrial subjects, procured the recognition by

local committees in general of those subjects loosely called "Commercial," so far only as to co-ordinate them with cookery, laundry work, dressmaking, nursing, etc. (these subjects being curiously so denominated in the minute of the Science and Art Department, Nos. 121–127), or to subordinate them altogether in conjunction with ambulance, elocution, etc. The right hand of the premier *commercial* country seemed to have lost its cunning: Chambers of Commerce, whilst without representation on such committees, could but look aghast and protest. The notion that the great thing is to instruct workmen was dominant; perhaps an idea suggested in the sphere of politics by Mr. Forster's elementary Education Act, passed so recently as 1870. Consequently, a very small fraction of the money voted by Parliament went to Commercial amongst "Technical" subjects, and much, as has been commonly considered, was wasted. Oddly enough, in the London area, the heart of which is the centre of the world's Commerce, but scarcely of its Industry, the proportion definitely expended by the Technical Education Board on Commercial instruction to the year 1895 was about two per cent. of its funds. The record of the West Riding of Yorkshire and of Lancashire was more creditable. Gradual improvement has marked the last three years; and yet out of 1,050 miscellaneous county council scholarships awarded only fifteen are put down in a Return as "commercial." Commercial subjects are now being slowly emancipated from their degradation, mainly through the efforts of the Chambers of Commerce, and of the London Chamber in particular, the attitude of which all through has been praiseworthy; and much more would have been accomplished had sufficient money been forthcoming, in respect of which the hesitation of the late Government, with the excuse offered for it, has been a puzzle to foreign observers,—we will not say a matter of congratulation. As the matter now stands, nothing, it would seem, will be done in furtherance of public policy in this direction until Authorities have been constituted under a Secondary Education Act still expected, although the Associated Chambers of

Commerce in the meanwhile remain obdurate. A series of Conferences on Commercial Education, culminating, so far as this country is specially concerned, in that convened by the London Chamber in the Metropolis at the Guildhall in July, 1898, which has been followed by the issue of a special "Report on Commercial Education" by a sub-committee of the London Technical Education Board, have roused public attention to the realities, the urgency of the case; and manufacturers have joined their voices to those of merchants in expressing the conviction that Commercial education concerns likewise their own order as bearing on the organisation and management of Industrial business. Schoolmasters, moreover, have been educated as to the need of academical instruction in these subjects: they do not as a class foster so much as at first the characteristically English delusion that an Office is the proper and only place for learning these things. That there is an invaluable form of *education*, as distinct from instruction and independent of it, to be obtained only there, every reputable merchant would himself maintain; but that a young clerk can acquire a general knowledge of Business through the mere routine of a particular branch, without acting the part of a constantly rolling stone, or, on the other hand, should be condemned to stay always in the same concern from inability to adapt himself to other requirements, is unreasonable. As it is, the vast majority, by no fault of their own (self-interest governs them no less than their employers, so as to keep energy alive, but that not well directed), fail to learn the reason of what they do; just as when at school they were allowed to learn Arithmetic sums according to rule alone. Moreover, when schoolmasters shall have been provided with the sinews of war, the excuse which they have had on financial grounds for supporting so little the London Chamber's efforts can no longer be urged.

The disadvantages from which employers at present suffer are connected mainly with international trade competition, which is met very imperfectly by discredited methods of doing business; whilst their employees have to compete at home or

abroad with those of their own age, who come to the work specially trained in observation. Here is a factor of the problem, the serious nature of which is only intensified by the fact that these rivals have been able to avail themselves of sound commercial instruction, and to all the more purpose because they previously enjoyed a somewhat generally better ordinary school education than that at the command of the Englishman. When everything else has been said, it is for our schoolmasters to lay this to heart, as some, no doubt, have already done through reading the Reports of Mr. Sadler on Modern School Education in Germany, furnished to our Education Department. Commercial Education has been a bugbear of the pedagogue on the one hand, and of the commercial empiric on the other. There have been objectors who assailed "bread studies" as supposed to be alien to the intellectual temper; others who have looked for nothing else than what is "unpractical": the educative element in these studies has either been missed or brushed aside. With regard to the "compromise" of which Sir H. Trueman Wood speaks in his paper contributed to the Venice Congress of 1899, it seems enough to ask, Has commerce, as the French and Germans say, become a profession? Many intelligent English traders, with our consuls, agree that it must now rank with the pursuits of Law and Medicine. A larger number of "quacks," however, discredit it than those, and an effort is being made to reduce their number as much as can be in the national interests.

The advocates of this department of Education are, further, confronted with the assertion that there is no pure theory of Trade. Such an objection arises, presumably, from the unquestioned fact that the phenomena which a student of Commercial Science has to analyse are in a constant state of change. Now, the material point is, Are the laws of these variations ascertainable? Economists affirm, with something substantial to show for the claim, that they are determinable. That Economics—a compound of several sciences, as Jevons said—is not itself an exact science will be confessed; it will

always allow of certain difference of judgment in matters of which the induction remains imperfect; but its complexity does not hinder it from being progressive. Relations, besides, of cause and effect operate in these as in physical phenomena, so that prediction is admissible here also.

A glance at the "Contents" page will enable the reader to find how the general topic is developed; and when desirous of ascertaining the disposition of matter among the several grades of instruction discriminated in the first chapter, he should derive from the references in the Index all the guidance needed.

II.

We may now offer a sketch of the progress made by foreign nations in Commercial Education; and in a subsequent section shall survey the state of matters at home.

The German Empire.—Imperial legislation has imposed on masters the duty of providing for adequate instruction of their apprentices, who do not, as young clerks in England, earn a salary, but usually receive a present in money at each Christmas. Consequently, the various Governments require that pupils of elementary schools, on leaving these, in most cases at the age of fourteen, shall attend evening continuation schools, which have been organised by local Chambers of Commerce, and now exist in vast profusion.

In Prussia the commercial classes must be taken until the students are eighteen; in Saxony, three years after leaving such first schools. Those educated at higher primary schools in Prussia keep at their work by attendance at elementary commercial schools, which increase in number every year, although not half of them are aided by the State. Pupils of intermediate modern schools, when destined for a trade, unless, as at Frankfort-on-the-Main, these possess commercial divisions, pass to higher mercantile schools, none of which so far are State schools, although Consul-General Simon, of Mannheim, advocates the States taking over all of these higher schools. That at Leipzig is typical, with a curri-

culum spreading over three years. This institution, although it is now "run" by the local Chamber of Commerce, is not obnoxious to the common criticism in which those indulge who find in all commercial instruction only swamping of liberal education. According to a recent Report of Professor Wolfrum, the late Director, "By far the greater part of the school hours is devoted to instruction in subjects of general culture." The first year is devoted chiefly to general education; modern languages acquire emphasis in the second, technical work in the third. The following is the syllabus: German, including literature and correspondence; English and French, besides German; Mathematics and Commercial Arithmetic; Physics, with Technology, Chemistry, and study of Commodities (*i.e.* object lessons, testing, analysis, and microscopic manipulation); Geography and general History; theory and organisation of Trade, with Commercial and Maritime Law; Book-keeping, with Mercantile Routine (Model Office); Economics and the History of Trade; Handwriting (Roman style in particular); Drawing; Gymnastics. As optional: Spanish, Italian, Shorthand; to which, we believe, should now be added Russian. Certificates as to adequate preliminary education, or a special examination in lieu thereof, are required of all candidates for admission. The age of the students ranges from fourteen (of apprentices at entrance, who attend in the early morning hours for their special classes) to eighteen and upwards. Anyone competent to judge who visits the school, as the writer did in 1889, would say that it well deserves its reputation. Like schools exist in each of the larger States. Since the year of the Prusso-Austrian War such "higher" commercial have shared with the classical schools the privilege of granting, under State supervision, Leaving Certificates based on a standard higher than like credentials known in this country; of the examination for these a large number of students avail themselves, if only to curtail the period of military or naval service obligatory on all German subjects. Indeed, without the military certificate it is almost impossible to secure a position in a good mercantile

house. To this regulation, accordingly, the schools are in part indebted for the energy which the students put into their work and the results obtained. So it is at Stuttgart, Munich, Frankfort-on-the-Main, Aachen (where a famous Polytechnic is aided by a Commercial Department of the same stamp annexed), and Dantzig and elsewhere abundantly. There are several excellent private schools in Berlin and Hamburg.

What about teachers? As regards their qualifications the Regulations of the Bavarian Government may suffice for an answer. These prescribe, as preliminary to entrance for the stated qualifying examination: (1) production of a leaving certificate from a recognised Commercial school, from an ordinary Modern school, or from any commercial division of a Technical school; (2) proof of one year's study, at a Technical High school or University, of Economics, Economic History and Geography, and evidence of practical work done in a counting-house during at least one whole year. The examination, written and oral, comprises (1) an Essay, designed to bring out the general culture of the candidate; (2) Economic Geography and History; (3) Mercantile Arithmetic and Algebra; (4) Book-keeping and Correspondence; (5) Commercial Law; and (6) Economics. The candidate must lecture before the Commission on a topic prepared within the twenty-four hours preceding, undergo oral examination on his disquisition, and give, in a technical intermediate school at Munich, a demonstration of his teaching capacity.

Are there any special means afforded of undergoing the training which such a test presupposes? The Saxon Government has provided at Leipzig a School of University rank in close association with the institute described above, and now in its third year, which has amongst its objects the satisfaction of the special requirements of teachers of commercial subjects. At Easter, 1900, a second examination was held here, and attended by twenty candidates for Ordinary and by six others for Teaching diplomas. Here actual employment in an office is not a pre-requisite for

teachers, but they must have taken part in the mercantile exercises of the College. The establishment of like Commercial Universities at Berlin, Hamburg, Frankfort-on-the-Main, Cologne, and Hanover, is under consideration. A first series of Holiday Courses for teachers in continuation schools was organised by the Prussian Ministry of Commerce, and held at Berlin in the summer of 1898, and shortly afterwards a like course, but for teachers in the day schools, was given at Dresden, under the auspices of the Commercial Education Association at Brunswick. This Society publishes a monthly journal, and, in conjunction with others, such as that which concerns itself with Rhineland and Westphalia in particular, in every way possible fosters the interests of commercial schools and of the teachers in them. Thus the Commercial University at Leipzig is the fruit of efforts made by the Brunswick Association. A Commercial School Exhibition is to be held at Düsseldorf in 1902. There has been already one at Dresden, in 1898.

With regard to Prussia in particular we may note that the *Imperial Gazette* of December 1st, 1900, contained a royal decree, directing that English shall be obligatory in all the Upper schools, and have general precedence over French, and be optional with Greek except in the three top classes. To this circumstance we shall make further reference in a subsequent chapter.

With regard to females who aim at commercial employment, their interests are aided by an Association at Leipzig; and a higher commercial school for girls was opened at Cologne in April, 1890. There are about fifty continuation schools for women at work out of nearly five hundred commercial schools altogether in Germany.

Austria and Hungary.—In this empire there are several Commercial Academies for higher instruction, most of them subsidised by Government, and to these resort pupils leaving, at fifteen or thereabouts, the "intermediate" modern schools. That with the greatest repute is at Vienna, with a three years' course, which is similar to the Leipzig curriculum, but is

largely w ighted with accountancy work. Here, in the Model Office, all students do the same work at the same time. As elsewhere in Austria, it is taken only in the last half-year of the highest class. Professor James, of the Chicago University, who has visited it, reported to the American Bankers' Association that the instruction here given is "no mere process of cramming in facts relating to industry and commerce. It is given in such a way as to secure the largest educational advantages from such materials of instruction."

At Vienna the Government has recently established an Export Academy, of University rank, in close connection with the Imperial Museum of trade products. This has special courses in Eastern languages, for the better training of Commercial attachés, etc. The languages which hitherto have been taught in the Austrian commercial schools are German, English, French, and Italian. At Prague there is the oldest of these, which has attracted much attention from the Commercial Model (Sample) Office instruction which characterises it. The system followed is that introduced by the late Professor Odenthal, who for many years was entrusted with this work. The various operations are distributed among the pupils. Trieste has the Revotella Foundation of University rank. At Buda-Pest the schools are under the skilled inspection of a Hungarian expert. There are more private than public among the commercial schools in this empire. The Austrian commercial school examination system is like that of Parisian schools, of which we have yet to speak. The Education Department, however, has set a good precedent by the issue, in 1899, of Regulations for the Examination of intending teachers in Commercial Schools. This shall consist of (1) a Paper prepared at home; (2) written work in Examination hall; (3) oral examination; (4) a demonstration of teaching ability. There are two groups of alternative principal subjects: (A) Advanced Book-keeping with Office Routine, Correspondence, Commercial and Political Arithmetic, Economics and Commercial Law; (B) Commercial Geography and Knowledge of Commodities. Evidence must be afforded by

candidates, whose special subjects are those of Group A, of having received preliminary education in a secondary school, and of a complete course taken in an academy, with at least four years' work in a Produce business or Banking house; and by those who profess special knowledge of Group B, of having attended a technical high school, of success in examination in Chemistry, and skill in manipulation of articles under the microscope, etc., or of having gained a University diploma for such knowledge. In Hungary similar Regulations have existed since the year 1872; and at Buda-Pest a Training College for teachers in commercial schools has been at work since the autumn of 1898. The Austro-Hungarian system is characterised by the large amount of countenance and money given by the Governments to the common schools.

Switzerland.—At about fifteen years of age pupils from the elementary schools who are intended for trade may enter the commercial division of one of the many secondary schools that exist in each canton and, maintained by public money, are free. Here they will continue to study the two national languages (French, German), English, and Italian, and take up Commercial Science, Business Arithmetic and Book-keeping, Office Routine, and Correspondence in French. A few classical schools have a commercial side, with instruction in Economics, Commercial Science, Book-keeping, Commercial Geography and Commodities. Schools of the special sort exist at Berne, Geneva, Basle, Neuchâtel, Zürich, Lucerne, and the last established, one of the best organised, St. Gallen. So far as aided by the Federal Government, they are subject to inspection. Much money has been expended at Neuchâtel over sumptuous buildings, and to this school many come for the language facilities (*e.g.* Russian may be learnt). There is a Swiss Association of Teachers; and a Holiday Course was given at Neuchâtel in the summer of 1898, which unfortunately clashed with that at Dresden mentioned above. There are in Switzerland a Teachers' Association and confederated societies which hold examinations for apprentices,

with headquarters at Zürich. A Commercial University is in course of establishment at Basle.

France.—In the French Senate in February, 1901, the Minister of Public Instruction contrasted the secondary educational system of his country with our own in favour of the latter. Indeed, it is not to this near neighbour that much of the stress of trade competition felt by England can be attributed; nevertheless she may learn something of her deficiency in respect of commercial instruction from observation of what is being done in Paris, Marseilles, Lyons, Bordeaux, Havre, Rouen, Lille, etc. There are now twelve superior Schools of Commerce, recognised and more or less subsidised by the French Government. Most of these belong to, or are administered by, Chambers of Commerce: thus, at Paris, there are two carried on under the auspices of the Paris Chamber, one of which shall be described, and another which belongs to a Traders' Association, the "Commercial Institute" in the Avenue de Wagram. Something, however, should first be said of provision made for day instruction, in the capital, of the intermediate type. There is such a school in the Avenue Trudaine, owned by the Paris Chamber. Its syllabus shows French (with Literature), English, German, Italian, Spanish, Mathematics, Book-keeping, History and Geography, Civil and Commercial Law, Commercial Science, Drawing, Handwriting, with Shorthand. The programme is arranged for four years, commencing at a minimum age of 12½; whilst there is a preparatory department into which pupils are received at an age as early as eight. Leaving certificates are granted by the Chamber of Commerce.

Coming to the "School for Higher Commercial Studies," which is in the Boulevard Malesherbes, we may say that its programme, as compared with that of the Leipzig Institute, adds to the features of the latter something of the complexion of a University College. Study of Law and Administration is accentuated; whilst great attention is given to foreign languages, Model Office work, such as is taught at Pigier's private academy in the Rue de Rivoli (the merits of which,

as described by Léautey, the writer has verified), as also in the superior schools in the provinces (except at Rouen and Havre), is discredited. Students enter at about the age of Oxford and Cambridge freshmen, but stay only two years. Admission is by competition, there being no difficulty in keeping up the numbers in spite of the high fees charged. Diplomas are granted at the end of their curriculum to successful students. Foreigners are exempted from the final examination if they are content to take away only a certificate of their having studied throughout the prescribed period. Ordinary *diplomés* readily obtain positions in the Civil and Consular services, or engage in enterprise commercial or industrial, if not in financial business, at home or, as in many cases, abroad. The authorities flatter themselves on the number of their *emigrés*, as affording evidence of the high quality of the language instruction. It is expected that the students should speak both English and German well at the end of the second year. It has been estimated that to the year 1897 £100,000 had been spent over the building and equipment of this admirable institution: it has spacious lecture theatres, laboratories up to date, a well-stocked museum of products, and a library of 4,000 volumes. It is, moreover, richly endowed with scholarships. Here, as elsewhere in Paris, "private" examination by outsiders of the students takes place weekly, on the lectures, in view of which the examinees are expected to develop the notes taken by them. This system has been viewed with disfavour by some critics, from apparently overlooking the fact that this process takes the place occupied by class-work in familiar systematic teaching, and to that extent distinctly stimulates the students.

The Ministry of Commerce gives further encouragement to students of the French commercial schools by offering to competition travelling scholarships to students who have obtained diplomas. These "boursiers," who must be between twenty-one and thirty years of age, and receive from 1,500 to 3,000 francs per annum, are expected to sojourn

in large commercial centres, such as London, Liverpool, Birmingham, Belfast, Frankfurt, Vienna, Barcelona, etc., to avail themselves of continued study in Schools of Commerce (*e.g.* the Liverpool Evening School), and to furnish reports on commercial life to the Department in Paris. A student from Marseilles, in this way, having had opportunity in the school there of learning modern Greek or Arabic, may be of service to French trade interests in the Levant or North Africa.

Evening instruction is given at Paris in profusion. Free classes under the Chamber of Commerce are held at the school in the Rue Trudaine, for those who have finished attendance at primary schools. Males may learn Book-keeping, Commercial Law, English, German, Arithmetic, Drawing; females, Arithmetic, Book-keeping, Commercial Correspondence, Handwriting, Commercial Law, knowledge specially required in the Paris trades, needlework, dress-making, English, and German. The municipality provides widespread facilities of like nature, as do also numerous societies.

In France, however, as in all other countries, there is great difficulty experienced in keeping up attendance. Something has been done of recent years in the way of introducing commercial instruction into higher primary schools, but the oppressive strain to which pupils are put, by far exceeding that of pupil teachers in this country, does not commend the system to the English mind. The training of teachers of commercial subjects has not been altogether neglected. This was a subject discussed at the International Congress on Commercial Education held at Paris in 1900, when it appeared from a report submitted by M. Martel, Inspector-General of Public Instruction, and the discussion which ensued, that whilst the training of teachers for the lower and middle grades goes on satisfactorily, that for work in the high schools much requires development. Hitherto the staff of the School for Higher Commercial Studies has been largely drawn from the University, grammar schools (*lycées*), the Bar, or from business experts. Arrangements exist for the admission to the

normal section of the school of students intending to teach in commercial schools of the second grade. Every year a certain number of places are competed for, and those candidates selected receive £75 per annum, payable monthly, with free instruction. The ages of these students are from nineteen to twenty-five. Each must previously have gained a primary diploma or its equivalent, and is required to undergo a special entrance examination in two parts: (1) Paper work, consisting of an Essay on some subject of History or Literature, with Arithmetic, Algebra, Geometry, translation from and into a foreign language selected by him from English, German, Spanish; (2) oral in Geometry, Chemistry, Physics, and (optional) Book-keeping. Most of the candidates have undergone three years' apprenticeship in ordinary teaching. All have to enter into an undertaking to work for seven years in a school to which they may in due course be appointed by the authority. These regulations, however, do not extend to students who look forward to appointments in the superior commercial schools. It was suggested at the Congress that the Government should be asked to facilitate the residence for two or three years in foreign countries of teachers qualified as above, who, on their return to France, should be given an opportunity of offering their services for the superior schools. The recommendation of M. Léautey, put forth in his standard work on Commercial Education, that degrees of Fellow and Doctor in Commercial Science should be instituted (cp. under Belgium), still awaits acceptance. The other High School of Commerce in Paris owned by the Chamber of Commerce is that in the Avenue de la République, and the third High School (rightly so classed by M. Siegfried), which is carried on by a company, is the "Commercial Institute," for some time situate in the Rue de la Chaussée d'Autin.

Belgium.—This small but pushing State has for a considerable time been able to afford guidance to those concerned in the development of Commercial Education, especially since the year 1886, when a very favourable estimate was formed of

the Antwerp Institute at the first meeting of the International Congress, held at Bordeaux. A majority of the children of the commercial class in Belgium receive their early education in the intermediate schools of this country, which provide all the preliminary instruction needed for the work of ordinary clerks. By Royal Decree in 1897 a commercial division has been established in each of these, alongside of the general school, into which pupils are received at the age of six; they are transferred to the commercial division when sufficiently advanced in general knowledge. About one-fourth of the school-day is then devoted to learning Commercial Arithmetic, Book-keeping, Correspondence, elements of Commercial Law and Economics, Commercial Geography, French, English and German, Typewriting and Shorthand. The writer, on visiting one of these schools in 1889, was struck with the excellent way in which Commercial Arithmetic was being taught. One of his English school pupils spent a year to advantage in a school of this type at Jodoigne. Immediately above the intermediate schools come the Royal Athenæum schools, all of which are secular grammar schools, with a Lower school (entered at eleven years of age) in which subjects of general education are solely recognised, and an Upper school in three sections, one of which is named "Commercial," continuing the general education of the scholars, but devoting four hours weekly to Commercial Science, with the view of fitting the pupils for the position of business principals, and in particular in preparation for admittance at such an institution as that which we shall next describe.

The Commercial College at Antwerp, named "*Superior Institute of Commerce*," represents the highest stage of commercial instruction in Belgium short of University training. It will soon celebrate its jubilee, having been established in 1852. When the writer first visited it, this institution was a small building in the Rue des Chênes, but is now a substantial structure in the Rue des Peintres. Entrance is obtained from the age of 16½, either upon production of a leaving certificate from an Athenæum school or an ecclesiastical estab-

lishment like the Josephite school at Melle, or after passing a special examination, which consists of French, English and German, Book-keeping, Mathematics, elementary Physics and Chemistry, Commercial Law and Economics, but is not severe, if the writer may judge from the examination passed in 1896 by another of his pupils. The ordinary course is spread over two years, at the end of which the student may be examined for a diploma as Licentiate of Commercial Science, and if successful may, provided that he is a Belgian subject, apply for a travelling scholarship—the first step towards entering the Consular Service. So far such a student will have studied in the institute the following subjects: Mathematics, Physics and Chemistry, general History and Geography, the Civil Code, as it obtains in Belgium, Commercial and Shipping Law, with Customs Regulations, and knowledge requisite for Shipowners, Economics and Statistics, Commercial Arithmetic, Book-keeping with Mercantile Routine (taught now as at Vienna, but formerly as at Prague), Commodities, Economic History and Geography, and some four of the French, Dutch, English, German, Spanish, Italian, Russian languages. Sir B. Samuelson stated before the Sub-Committee of the London Technical Education Board that students of all nationalities resort to this institute in order to learn French. A Frenchman might well ask, Did he not mean to say Flemish? Under Regulations of the year 1897 the student has the option of deferring the examination until he has continued his studies for a third year, and may then seek a diploma as Licentiate, with the appendage of "Consular," which is treated as equivalent to those of like designation, that, under the same Regulations, may now be taken at one of the Universities of Ghent and Liège (after further training in such branches as are characteristic of examinations for the Diplomatic Service). Here also may be taken the higher degree of Doctor of Commercial Science, to which intending teachers do well to aspire.

A weakness of the Antwerp system is that the instruction takes the form only of lectures, which the students take down as best they can. On the occasion of the International Con-

gress in this city in 1898 the Students' Association memorialised the authorities to introduce a certain amount of class teaching.

A similar Institute to that in Antwerp now exists at La Louvière, which is an ecclesiastical establishment, with a three years' course, the second year being arranged for a residence in Leipzig, the third arranged for residence in London, in view of office experience as well as continued study aided by attendance at the "London School of Commerce," by which is presumably meant the School of Economics to be noticed below.

As in other countries, the requirements of females are provided for in all the larger towns; whilst the intermediate schools extend the same advantages to girls and boys.

Finally, we may note that with increased diffusion of commercial education in this very progressive little country, severe competition is anticipated in Paris from young Belgians resorting to the French capital for employment, after the example of Germans and Swiss.

Italy.—The aspirations after expansion, by colonies or otherwise, to which the attainment of nationality or national unity by two of the countries already considered has given rise, find further illustration in the enlarged horizon of one accustomed to regard our own with a friendly eye. Italy, since the eventful year 1870, has made rapid strides, educational and economic, which find certain expression in her system of commercial instruction. What is tantamount to secondary education here begins early; and yet it will not be said that superficiality is a characteristic of this branch of the Celtic race. By eleven a boy or girl may enter a technical school under Government regulation, where for three years they will learn, amongst other things, French, Mathematics with Book-keeping, Science, and Drawing, and at the age of fourteen may obtain Leaving Examination credentials. This course may be followed up, for four years, by one at an institute providing instruction in French, German and English, Mathematics and Advanced Book-keeping, Chemistry

and Drawing, History and Geography, Economics and Principles of the Commercial Code; completed by Examination for a Diploma, the possession of which excuses a male from all but one year of military service. The knowledge here gained of Book-keeping, Correspondence, and Bills enables pupils to engage in practical work from the very commencement of the higher stage to which they now proceed. There are three Commercial schools of the first rank, besides many schools of a mixed, industrial and commercial, character, and one of University status at Milan. The *Venice* school has come under recent special notice by reason of the 1899 meeting of the International Congress having been held in that city. Students are admitted to it at the age of sixteen, after an entrance examination similar to the one at Antwerp; but a diploma from a technical school will exempt from this. Students intending to engage in business take a three years' course; those who aim at a consular appointment, one of five years; whilst intending teachers may avail themselves of a five years' curriculum. The subjects taught here are: Italian Literature, French, German, English, Algebra, Commercial Arithmetic, Book-keeping and Model Office work (which, as in other Italian schools, runs through the whole course), general and commercial History and Geography; study of Commodities and Statistics, Economics and Finance, the Commercial Code, with Industrial, Shipping, International, Constitutional, Criminal and Administrative Law. Attendance of the commercial course is accredited at the end thereof; whilst success in the Teachers' Examination secures a Special Diploma. This school is under the direction of a parliamentary deputy. A Holiday Course was given at Venice in the autumn of 1900 intended for foreign teachers and advanced students of the Italian language.

The school at *Genoa* is administered by a joint Board, representing the Ministry of Commerce, the Province, the Municipality, and the Chamber of Commerce, which together contribute £3,200 yearly to its support. There are examinations for promotion from one stage of instruction to another; and

the full course takes five years. Graduates of the school find immediate employment, at high salaries, in banking and commercial establishments and public companies, whilst some have been employed for expeditions and voyages on behalf of the Government. A special feature of the Genoa school is the Model Office work, which is done very thoroughly and, it would seem, successfully. Students in the Business Training department are supposed to represent different firms in various parts of the world, and go through all the most minute operations of trading with each other, including transit of goods by sea and by land. Connected with these commercial houses are a deposit and discount bank, a bank of issue, and a clearing house, all being furnished with a complete set of ledgers, forms, etc., such as are actually used in each department of trade. The system was copied from that employed in the Antwerp school, and modifications have been introduced as Italian trade usage and teaching experience dictated. Amongst the languages taught here is Arabic, in view of the requirements of traders at Tunis and in Abyssinia.

The school at Bari, which serves Southern Italy, is under the direction of Professor Pantaleoni, known in this country by his work on Pure Economics, in an English translation.

Finally, a few words as to the Commercial University at Milan. This is fruit of the munificence of Ferdinand Bocconi, one of the wealthiest of Italian merchants. In the letter announcing his wish to endow such an institution, he displayed a firm grasp of the needs of the day. Amongst the "rich treasure of theoretical and practical knowledge" that he would foster, he stipulated for a "*banco modello* (Model Office) similar to that of the Antwerp school."

Russia.—The British Board of Trade Journal in the year 1897 recorded rapid advance made by Russia in the reorganisation of its commercial schools; for such this country, commonly accounted backward, has long possessed. Until 1894, commercial instruction was confined to intermediate schools, without inspection; but since that year it has been placed under the control of the Ministry of Finance, the

present head of which, M. de Witt, has exhibited a mind accessible to Western ideas. Higher primary instruction of economic value is now recognised; classes on the higher plane have been established at Moscow, Odessa, Warsaw, Riga, and of course the capital, whilst an advertisement may be seen in the *Novoe Vremya* of facilities offered to females there; and the development of the commercial museums receives careful attention. The English language is now to be an optional subject in all commercial schools.

Of the remaining countries on the European continent, it may suffice to say that Amsterdam, Copenhagen, Christiania (where a Commercial University is in contemplation), Gothenburg, Stockholm, and Barcelona are cities all supplied with commercial schools, public or private, doing good work.

The United States.—Turning now to the continent of North America, we find a vast amount of material for selection. In the States there have long existed a multitude of Colleges variously qualified as "commercial" or "business"; the difference between them, according as it is a question of which class is the more theoretical or the more practical, is slight. The Commercial Colleges, regarded as the more systematic, are such as exist at New Orleans and St. Louis. M. Léautey has fully described the institutions known as the Eastman Business College in New York State and the Spencerian Business College at Washington, as they were some fifteen years ago. The curriculum of each now approximates very much to the features common to the European schools described above. The Model Office, as the reader would expect, is fully developed. It has been described by a recent observer, Mr. de Bear, principal of Pitman's Business College in London, in a Paper prepared for the London Congress,* We may therefore confine the present statement to advances made during the last four years. These are chiefly due to the initiative taken by the New York Bankers' Association and, individually, to the energies of Professor Edmund James, whose Reports to that body on European schools have, by

* *Journal of the Society of Arts*, July 30th, 1897.

comparison, made clear the deficiencies of most in America, especially as to instruction of the University type, and whose organising ability has already been very fruitful. There are four institutions of University rank, representing the latest American ideas on Commercial Education, which are now at work, or each of which soon will be. These are the Wharton School of Finance and Political Economy, attached to the University of Pennsylvania at Philadelphia, and especially devoted to the study of Railway Economics; the College of Commerce and Politics, a Faculty of the University of Chicago; the College of Commerce annexed to the State University of California at San Francisco (the first Annual Report of which, by President Wheeler, for 1900 is before us); and the School of Commerce in the University of Wisconsin at Madison. The second of these has been organised under the superintendence of Professor James, after he had already had the experience of rendering a like service at Philadelphia; and we shall describe its Programme, as exemplifying all.

The Chicago "College of Commerce and Politics" is the gift of the "Petroleum King," John Davison Rockefeller, who to his previous donations added £300,000 at the end of 1900 as a "Christmas present," making in all nearly £2,000,000. The full curriculum is spread over four years, for two of which the student is instructed in the Junior College, and for the other two in the Senior College. There is an Entrance Examination in Latin, Mathematics, English, History, Physics, and German (or French). Three subjects, called "majors," must be taken by every student for each term, of which there are three in the year. Juniors study for two terms English, Mathematics, and Economics; for three terms, French or German, History, Science, and optional subjects, so as to take eighteen "majors" in all. Seniors in like manner have to cover eighteen "majors," taken from a *Required* course, a *Specified* course, and an *Elective* course. The *Required* course is divided into three groups: (1) Trade, subdivided into (*a*) Railway Systems and Legislation; (*b*) Economics of Money

(Banking); (*c*) Industrial Processes, Tariff, History of the United States, Economic and Social History; (*d*) Insurance. (2) Politics and Journalism (Economics, Political Science, General History of the United States, and that of Europe in the nineteenth century). (3) Diplomacy (Political Science, comparative National Government, International Law, Diplomatic History of Europe and of the United States, with History as in Group 2). The *Specified* course comprises Finance and Taxation, Federal Government, Government of Great Britain, Constitutional and Administrative Law of the United States, Parliamentary History of England, and general Sociology. In the *Elective* course appear Economy of Living, Folk Psychology, Economic Condition of England, Amelioration of Rural Life, Modern Cities, Contemporary Charities, Philanthropy. The student must take six of his eighteen "majors" from each course, and may at the end of the four years undergo examination for the degree of Bachelor of Philosophy, upon obtaining which he may join the "Graduate School" and read for the degree of Doctor.

At Philadelphia there is the best commercial museum in the world.

Following upon the organisation of the academic instruction just described, the New York Chamber of Commerce, in the autumn of 1898, appointed a special committee to advise on the establishment of a school of the approved type. Counsel was taken with the Chief Inspector of Schools in New York, who recommended the establishment of one high school in Manhattan, and another in Brooklyn, which should have syllabuses settled yearly by the Chamber, and should be inspected by it. One such school was opened in October, 1900. The subjects proposed in the first instance are Foreign Languages, Economics, Commercial Law, Commercial Geography and Statistics, Arithmetic and Bookkeeping, International Trade, and study of Commodities. A noticeable feature of American education is the enlightened generosity of the most successful citizens of the great Republic or of Canada in providing funds for the creation of

colleges, sometimes bearing their names. What had previously been done for students on that continent by McGill, Cornell, Commodore Vanderbilt, and Rockefeller, we shall see is being done for the English midlands. In New England there is an "Eastern Commercial Teachers' Association," at a recent meeting of which forty-nine representatives voted for State inspection of the schools, and only one against.

Canada.—In the province of Ontario a commercial diploma is granted in secondary schools for knowledge of Book-keeping, Business Forms and Usages, and Shorthand. Teachers, to be examined for Commercial Specialists' Certificates, must be proficient in Book-keeping, Commercial Arithmetic, Banking, Business Forms, Laws of Business, Shorthand, and Drawing. These subjects they must profess in addition to languages and literature, the English branches, mathematics and science. A teacher, after having obtained a university degree, must take one year's course of training at the Ontario Normal College. In the province of Quebec all the public secondary schools, French and English, provide for instruction in Book-keeping, Business Forms and Practices. In the province of New Brunswick there are six "commercial colleges," in each of which the course comprises Book-keeping in all its branches, Commercial Arithmetic, Commercial Law, Shorthand and Typewriting, Banking, Business Forms. On Prince Edward Island is the Charlottetown Business College. In British Columbia the high schools in each of the cities of Victoria, Vancouver, Nanaimo, and New Westminster have a commercial course, which includes Book-keeping, Banking, and Commercial Law.

Japan.—So far we have been concerned with countries of the West, but must not conclude this survey of foreign progress without recording the advance made upon Great Britain by an Asiatic people, not content to develop only its army and navy. In the empire of Japan there already exist five grades of commercial instruction. (1) There are twenty-two commercial continuation schools, to which children of ten years of age may go on completing the obligatory pre-

liminary education. These are apprentices, who for three years are taught Commercial Arithmetic and Correspondence, Properties of Merchandise, Commercial Geography, Book-keeping, Commercial Usages and Legislation, Economics, and English. (2) Next above these are eight higher primary schools, entrance to which is allowed at the age of ten, for pupils who can still give their whole time, for three years, to the study of general subjects (Ethics, Reading, Writing, Composition, Arithmetic, Geography, and Gymnastics), with the addition of Book-keeping and Commercial Knowledge. (3) The needs of children, aged fourteen, of the middle classes are largely met by the intermediate schools, of which there are eighteen public and eight private (the latter chiefly in Tokio), where, besides the continued study of general subjects, as above, the pupils learn, for three to four years, Chinese, English (or other European language), Mathematics, History, Elements of Economics, Commercial Legislation, Commodities, Theory of Trade, and Counting-house Work. Those holding the leaving certificate of a higher primary school may proceed to one of this grade, and its leaving certificate secures limitation of military service to one year. (4) Schools next to come before us, which are higher commercial schools of the kind so called in Europe, but so far, we believe, there are only two or three—one at Osaka, which is in its infancy, adding to the general subjects in its syllabus only Drawing, Natural History, and English; another at Yokohama, with a five years' course, two of these for preparatory, and three for advanced work. The age for admission is again fourteen. The three subjects last mentioned constitute, with the general subjects, the two first years' work, which is followed by Commercial Ethics, Arithmetic, Book-keeping with Mercantile Routine and Correspondence, Economics, Commercial Geography and History, Commercial Legislation, Theory of Trade, Commodities, English, and Gymnastics. A school of this stamp was opened at Tokio in 1900, after endowment by a merchant with £50,000. (5) This brings us to a description of the Commercial University at Tokio, the organisation of which

is probably being followed for another at Kobe, promised by the Government. The Tokio College was established in 1875, and converted into a University in 1887. Here scope is given to young men of good family, who would otherwise adopt the military or naval profession, to prepare themselves for a commercial career, and many avail themselves of it. There are three successive courses of study here, occupying altogether six years, some students finishing in four. The common age for matriculation is seventeen, when students can come up with the leaving certificate of an intermediate school. The first year is devoted to Commercial Ethics, Handwriting with Commercial Correspondence, Mathematics and Book-keeping, Applied Physics, Chemical Technology, Jurisprudence, English, with another foreign language (German, French, Italian, Spanish, Russian, Chinese, Korean), and Gymnastics. This list gives place, in the three years following, to Commercial Arithmetic, Economic Geography and History, Mechanical Technology, Commodities, Economics and Finance, Statistics, the National Law, Commercial and International Law, Science of Commerce, with Commercial Practice. A student may then, for two further years, take up Comparative Commercial Law, Criminal, Public, and Administrative Law, and classes in Banking, Railway Transport, Shipping, Insurance, Consular work, and Trade Policy. The above-named foreign languages are all taught in a special language school. There is, further, a department for the training of teachers, in which students are aided by an individual allowance from the Government on undertaking to engage in teaching for at least three years following the completion of their courses. They are trained in Ethics, Commercial Arithmetic, Correspondence, Geography and History, Book-keeping, Commercial Practice, Commodities, Economics, Commercial Law, English, Gymnastics, and, in particular, the Theory and Practice of Teaching. Travelling scholarships are granted by the Minister of Commerce to approved students, and such may be seen daily in London. A yearly Conference of Headmasters is held at Tokio. Not only so, but everything is done, by preparation of systematic

manuals and the publication of a fortnightly journal (in both Japanese and English), to stimulate this branch of modern education. Already have been published up-to-date manuals of Book-keeping, Banking, Insurance, Commercial Law, Commercial Geography and History, Exchanges, Warehousing System, English and Japanese Correspondence, and for Economics (based, most happily, on the German treatises of Roscher and Cohn, the latter only published in 1898!). Such is the tale that this enlightened people can tell of their achievements in this direction, for the details of which we are indebted to Dr. Tokuzo Fukuda, Lecturer at the Imperial High School of Commerce at Tokio.

III.

The United Kingdom.—With the above account of what has been done for Commercial Education abroad, which embodies occasional communications of the writer to the *Educational Times* or *London Chamber of Commerce Journal*, the reader may compare the following sketch of efforts made to introduce into this country something worthy of the name, in advance of that which Macaulay has told us was given in their youth to some of the most famous servants of the East India Company. Notwithstanding the truth of Montesquieu's tribute to the English people that they "know better than any other people on earth how to value at the same time these three great advantages, Religion, Liberty, and *Commerce*," the discredited "commercial education," inherited from the days of Clive and Hastings, and given in private academies, continued to rear its head until the Commercial Revolution, which has been running its course for nearly one generation. This time it was not England, but Germany, that led the way: we have had to learn. Happily, the lesson is being learned, although under the restraint of those conservative instincts which Mr. Gladstone said are peculiarly blended with progressive tendencies in the British character. As the course taken by this movement in England must be somewhat more

familiar to most readers than what has preceded, the writer may confine this portion of the record very much to an expansion of the Report prepared by him in 1897 in connection with the Congress held in London.* And here, to begin with, he would repeat a recognition of the services rendered, beyond those of all other bodies relative to monetary resources, by the London Chamber of Commerce. About £1,200 is yearly disbursed by it in this connection. Although hampered by misunderstandings and by scant support from educational authorities, the mercantile authority that could speak most effectively has pursued an even course as far as has been practicable. The associated chambers throughout the empire have accepted its leadership, and only a few chambers prefer to promote the movement in isolation: general adhesion to the cause is secured. The London Chamber's story of its crusade against traditional ideas and policy, now commonly admitted to be worn out from a practical point of view, which has emerged from the economic outlook, is told in its own publications (periodically in its Journal), and the results may be learned from its annual Examination Reports, of which now the seventh Senior and eleventh Junior have appeared. The requirements of the Juniors' Examination were relaxed and some schools, accordingly, have acquired more courage, so that the entries increase in number.

The present requirements are: English Essay and Analysis, Arithmetic (including Metric System), one Modern Foreign Language (conversation obligatory after 1901), and Elementary Drawing, together with at least two subjects of one optional group, of which A ("Mercantile") comprises Commercial Arithmetic, History and Elements of Economics, Commercial Geography, Advanced Drawing, Shorthand and Typewriting. Further details may be learned from the Scheme and Syllabus. This Examination is designed for school pupils aged about sixteen. A candidate who has already passed an examination in one of the prescribed subjects regarded as equivalent to the above will be excused re-examination in such subjects.

* See *Journal of the Society of Arts*, August 6th, 1897.

There can be little doubt that the number of entries would have increased faster had headmasters been in command of additional funds, enabling them to secure competent assistants for commercial subjects.

The Chamber went some way in the direction favoured by the old principle of educational reform — according to which one should commence at the top — by fostering at first solely the middle-class schoolboys' examination, thus leaving in abeyance the interests of young men already clerks, and actually feeling the strain of foreign skilled competition. But the ultimate launching of a Seniors' Examination, accompanied by an announcement that precedence would be given by a large number of London firms to applicants for posts who should hold certificates of either grade, has year by year borne more fruit.

The requirements of the Clerical Examination for a full certificate are: English, two Foreign Languages (conversation imperative), Mathematics, Geography, Commercial History, and Elements of Economics, with two optional subjects, such as Machinery of Business or Banking and Currency, Commercial Law or Book-keeping, Shorthand or Typewriting.

The account about to be given, commencing with the Metropolis, of commercial instruction attempted in schools at present, may afford any reader who is a parent a fair idea of facilities for the practical education of his sons.

A.—The London secondary public school which offers a genuine training of this kind on the largest scale is that carried on by the authorities of University College, where a Commercial Department was started at Easter, 1900, as an experiment promoted and aided by the Technical Education Board of the London County Council. The syllabus of this school, and of any other institution here named, may be obtained by any reader on application to the respective Secretary, Headmaster, or Principal; some information will be given on the destination of such inquiries (see Appendix). We may therefore confine this concluding portion of the present chapter to a very general statement. The

programme of the school under notice provides for a commercial course extending over two years, probably from the belief that any longer period would at first be too ambitious, and would not receive sufficient encouragement from parents. A boy for whom admission is sought must be at least fifteen years old, and display proficiency considerably above the average in general school subjects, including ability to engage fairly well in French or German conversation. Twenty scholarships of the Technical Education Board were offered for competition in the first year. An examination shall intervene between the course of the first and that of the second year, upon which will depend the degree of probability that any pupil will be ripe at the end of the whole for a leaving examination leading to the Board's Certificate. The more advanced instruction includes Commercial Science and Economics. It is to be hoped that the difficulty of giving in so short a time other than superficial training in the latter subject will be surmounted. Shorthand and Typewriting are optional. A feature that will commend itself to practical men is the intention to place the pupils in touch with actual commercial life by visits to Docks, etc. This commercial division already contains nearly thirty pupils. As to other day schools in London, it may be said that instruction of a less pronounced kind has been given for a considerable time by some other first-grade schools on their modern side, such as Merchant Taylors (Commercial French and German, Commercial Geography, Book-keeping and Shorthand), the City of London, and King's College schools. The second-grade schools, such as the United Westminster and the Regent Street Polytechnic, give probably as much as it is safe for them to attempt; whilst more, perhaps, might have been attempted with its staff by one like Owen's, or even the Grocers' School, which receive the sons of so many business men. Here, it would seem, such instruction is avoided, save as parents press for it.

Coming to institutions which afford evening instruction, that which first offers itself for notice is the "London School

of Economics," which is destined to take a prominent place in the reorganised University of London, and therefore among places of instruction in the daytime; but at present, we believe, has to limit its operations very much to the evening hours. That, however, is of a quality not to be attributed to any other institution of the many visited by the writer during such hours. Here are to be had Lectures and Classes given and conducted by experts in most subjects of economic value on the higher plane of commercial instruction. Passing from this, we may single out for mention, deservedly, as having done good work under the old conditions, such estimable institutions as the Birkbeck and the City of London College, centres for some time of the London Society for University Extension; and to these must be added, of later creation, the excellent Regent Street Polytechnic, the more pretentious polytechnics chiefly devoted to secondary instruction on the industrial side, besides the Evening Classes and also sixteen special Evening Commercial schools carried on by the London School Board under the policy of the Progressive majority, which, until the decision in The Queen *v.* Cockerton, has not been challenged by higher authority. The instructors here are chiefly drawn from the circle of teachers whose experience has been gained in the sphere of the ordinary operations of the Board. Useful work is being done by several private establishments, such as Pitman's Metropolitan School, where commercial instruction is under the charge of a retired shipbroker. The examinations of which the ordinary London evening-class student can avail himself for the purpose of having his knowledge attested, besides those of the Chamber of Commerce, are the annual Examinations of the Society of Arts, a body that was the pioneer in the early history of Commercial Classes, which it sought to foster, as the old South Kensington Department did Science and Art, without, however, being able, as the Government authority, to use the bait of money grants. There are, further, in the interests of Elementary Teachers the examinations held by the National Teachers' Union. Such is a fairly comprehensive

account of what is being done for the inhabitants of the metropolitan area.

The Technical Education Board will appropriate £2,500 per annum towards the endowment of a Commercial Faculty in the new University of London; and meanwhile Mr. Passmore Edwards provides a building for the School of Economics, to whose funds Lord Rothschild contributes £5,000.

B.—As we introduced the survey of operations in London by a notice of a first-grade school, the same course will be followed in estimating the progress made in the provinces. The same year that was signalised by the formation of a Commercial Department in University College School saw the beginning of a like but somewhat more ambitious scheme in connection with the *Bradford* Grammar School. Here a Commercial Department of the modern side of the school offers to boys of fourteen years of age a course of specialised training for three years in English, French, German, Mathematics, Science, Drawing, Commercial Geography and History, Business Methods (including Shorthand), Book-keeping, and Economics. The pupils must have had two years' previous training in a School of Science, or shall be required to pass an entrance examination in English, French, Mathematics, and Science. The work is to be tested by inspection (without written examination) during the course. At the end of the third year an examination is to be held for Leaving Certificates granted by the local Chamber, which has taken a leading part in the creation of the department. This scheme connects itself with the general activity of the Technical Education Committee of the West Riding of Yorkshire in behalf of Commercial Instruction, which the reader might gather from perusal of its *Directory* as annually revised since the year 1893. There is a Yorkshire Association for Commercial Education. Classes under its immediate inspection have been established all over the Riding; each of more than forty institutes has a room fitted up as an office. Instructions have been issued to teachers, and classes for the training

of these provided at the Yorkshire College in *Leeds*. In this last-named city the Higher Grade School affords an example of attempts made to bring the advantages of such instruction within reach of the children of working men. The *Halifax* Chamber has promulgated an excellent special scheme of its own, and grants its own certificates. Only second to the efforts of Yorkshire have been those of the Lancashire County Council, and of the authorities at Manchester and Liverpool in their respective jurisdictions. Scholarships and Exhibitions tenable at institutions at home or abroad approved of by the County Committee are annually offered to competition, but difficulty has been experienced in finding suitable candidates. Long before the London School Board established Evening Commercial schools, *Manchester* was in possession of well-organised Evening Classes, placed under the skilled management of a Chartered Accountant, himself an experienced teacher. In December, 1900, there were 1,600 students in attendance, including numerous foreigners, taught separately. Here a student may learn Russian, Danish, modern Greek, etc. The Victoria University, after an abortive attempt by the Manchester Chamber of Commerce to establish an examination scheme applicable to secondary schools, provided an annual Certificate Examination for clerks instructed in evening classes of an advanced character at Owens College and Liverpool University College, of which examination students in the classes carried on under the auspices of the Union of Lancashire and Cheshire Institutes, which holds examinations of its own, may also avail themselves. Finally, at *Liverpool*, in 1899, was established a Day School of Commerce at University College, under the joint management of the College, the Corporation, and the Chamber of Commerce, the Board being presided over by a cotton broker, a gentleman who, after having himself been educated in a Belgian commercial school, is an ardent supporter of this movement (cp. chap. xi.). In the two years' course, intended for pupils from secondary schools who can pass an entrance examination in General Knowledge at the age of sixteen, the students

receive instruction in Mathematics, French and German (both general and commercial), Spanish for commercial purposes, Commercial Practice, Mercantile Arithmetic with Book-keeping and Correspondence (but not Shorthand and Type-writing), with, in the second year, Economics and Commercial Geography, Commercial Law, and take a few ordinary College Classes, during the first year, in furtherance of general culture. Terminal examinations are held, and at the end of the second year one for diplomas. An advanced Commercial Department has been organised also in the Liverpool Institute School.

Next should be recorded progress made in the Midlands. At *Birmingham*, besides the evening classes provided by the School Board, which meet the needs of its previous pupils, there is an organised evening commercial school at the Midland Institute, with a syllabus representing the stage of knowledge required for the highest class of clerks, for which school there is an entrance examination; and shortly the requirements of the highest form of commercial instruction will be satisfied when the Commercial Faculty of the new University has been organised the sum of £50,000 having already been promised towards its endowment by an anonymous donor. The idea at first was that the students before taking lectures in this faculty should have graduated in Arts; but, we understand, the intention now is to have, besides a post-graduate course, one that can be utilised by matriculated students for a degree. They will have to be efficient, amongst other things, at the time of matriculation in two modern languages.

Within this group of towns of which the metropolis of iron is the centre, *Walsall* has now in operation at its Grammar School a scheme of Commercial Education for boys of fifteen years of age, on similar lines to those of the London and Bradford schools above described. It remains that we should describe the arrangements of the *Bristol* School of Commerce, or Commercial Department of the Merchant Venturers' College, as representing a view of what it is desirable to do for

boys still at school somewhat different from that to which effect has been given in the three intermediate schools elsewhere, to which attention has been directed. Here are, again, day classes; these form the commercial side of the Boys' School of the College, for pupils aged thirteen at the time of entrance, who can go on until they reach sixteen. They are instructed (under "English") in Commercial Letter-writing, French and German (with Commercial Correspondence and Conversation), Elementary Mathematics, Book-keeping, Shorthand, Typewriting, use of tools, Art and Geometry, with less difficult branches of Natural Science. Particular attention is given to Accounts and Handwriting. Success in a final examination of any boy who has been in Form VI. B. for one year is accredited by a Governors' Junior Certificate, possession of which will assure him favourable consideration if an applicant for a higher position in any one of sixteen firms countenancing this Scheme. Such a student may then take evening classes at the College, in Commercial Arithmetic, Commercial Geography, English, Book-keeping (or Shorthand), French (or German, Spanish, Italian), Physiography (or Inorganic Chemistry, Magnetism with Electricity), Knowledge of Commerce, Industry and Commercial Methods; at the age of nineteen, it is conceived, he may undergo an examination for an Intermediate Certificate; and after two years' further study, and taking up Economics or a second modern language, he may present himself for a Senior Certificate. A colloquial command of any language professed will be required at each stage.

Various leading provincial schools, such as the *Manchester* Grammar School, *Bedford* Grammar and Modern Schools, *Nottingham* High School, Leys School at *Cambridge*, give limited facilities for acquiring knowledge of commercial value; while some Grammar Schools, such as those at *Ipswich* and *Portsmouth*, definitely prepare boys for the London Chamber's Junior Examination. They are but few which ignore commercial subjects entirely: of the Returns made to an inquiry by the Editor of "*Education*" in the year 1898, no less than 389

out of 409 public boys' schools in England professed to include one or more of such subjects in their curriculum; and the same was done by 30 out of 167 girls' schools. All such can make use of the Oxford Local Examinations; but those of the Cambridge Syndicate and the Joint Board are no longer available. Besides the English counties already mentioned, most others have, through Local Committees, established classes more or less useful for subjects minuted as "commercial" by the old South Kensington Department, under Section 8 of the first Act; and the Society of Arts Examinations have been largely utilised by such committees.

C.—The Welsh Central Board stimulates commercial instruction in schools examined by it, so far that candidates may be entered for Preliminary certificates of either the Junior or Senior Grade. Juniors are examined in (1) English language (or English Literature, or History); (2) Arithmetic; (3) Geography; (4) one modern language, including conversation; (5) Book-keeping; (6) Shorthand (or Drawing, or Woodwork). Seniors are expected to offer the same subjects; but under (3) is added "with special reference to commercial requirements," and under (4) "and Correspondence." In the Returns made as above, all of thirty-two Welsh boys' schools stated that they give commercial instruction, as was also affirmed by seven out of fifteen girls' schools.

D.—The Scotch Education Department countenances, although it very little stimulates, commercial instruction, by annual inspection of classes for such subjects in secondary schools which voluntarily submit to its supervision; but no inspector is specially engaged to report on this instruction. In the lower and higher grades papers are set to test knowledge of Commercial French and German, which have of late been set by a gentleman who has had valuable commercial experience. There are also papers in Commercial Arithmetic and Book-keeping. A first-grade private school, known as Blairlodge, in Stirlingshire, has a Model Office, which has been visited, exceptionally, by Mr. Miller, C.A., of Edinburgh, on behalf of the Department, and received a

favourable Report. A few higher-grade schools have a commercial department for Modern Languages, Shorthand, Book-keeping, and Products. Chambers of Commerce, such as the *Aberdeen* and the *South of Scotland*, have been doing their duty in this matter. The northernmost Chamber has adopted the London Chamber of Commerce Examination, for which the granite city is a local centre. The Border Burghs, or woollen and hosiery manufacturers of *Hawick*, *Galashiels*, and *Selkirk*, have a scheme of their own, according to which Commercial Certificates are awarded by the Chamber to pupils of the secondary schools of the district who produce the credentials of the Scotch Education Department for English, History, Geography, French or German, Commercial Arithmetic and Book-keeping, Algebra, Geometry, Inorganic Chemistry, Freehand Drawing, and Advanced Shorthand. An elementary certificate is also granted to pupils of the elementary schools, who after having gained the Department's "merit certificate" have attended a continuous course and undergone a successful examination in a modern language, Mathematics, Book-keeping, and Shorthand, each of a grade lower than that which obtains in secondary schools. A preference will be given by any member of the Chamber to an applicant for employment who holds either the "commercial" or the "elementary" certificate. Approved commercial instruction is given at the Leith Science College under the auspices of the local Chamber of Commerce, whose certificate is granted to successful examinees. At the Heriot-Watt College in *Edinburgh* evening systematic commercial courses are given in view respectively of Intermediate Certificates and full diplomas. Classes are held in Commercial Correspondence and Précis-Writing, History, French, German, Spanish, Dano-Norwegian, Industrial and Commercial Geography, Economic Science, Practice of Commerce, Book-keeping with Principles of Accounting, Insurance, Banking and Banking Law, Commercial Law, and Shorthand. Certificates may be obtained by examination in Commercial Arithmetic, preparation of Mercantile Accounts, Book-keeping,

Shorthand, Dictation, Composition, Correspondence; whilst for diplomas a candidate must be proficient in, besides the subjects just named, Economics, Commercial Law, Commercial Geography, and Practice of Commerce (or Accounting and Insurance, together with Banking and Banking Law), and one of the following: Algebra and Actuarial Science, or a foreign language taught in the Institution, including Conversation and Correspondence. *Glasgow*, of course, is not behind Edinburgh in this particular. The School Board of that city provides continuation classes in subjects suitable for ordinary clerks, whilst the higher order of instruction is well cared for at the Commercial College of the Athenæum, where young men and women may have aid in five foreign languages (including Portuguese), Commercial Composition and Précis-Writing, Mathematics and Book-keeping, Shorthand, Typewriting, Commercial Geography and History, Economics, Mercantile Law. A student under twenty-one who has attended classes for four years, will be granted a Junior Diploma on gaining First Class Certificates in five of the following subjects and passing in the others: English, Book-keeping, Mercantile Law, Arithmetic, Shorthand, Commercial Geography, and two Modern Languages. A foreign language must be one of the five subjects. He may after a further year receive a Senior Diploma if he gain First Class Certificates in three of the following: Latin, Mathematics, Logic, Economics, Constitutional Law, Chemistry. The subject of Commercial Education has been under the consideration of a committee jointly appointed by the Edinburgh Merchants' Company and the Edinburgh and Leith Chambers of Commerce, which took the opinions of some educationists of repute, together with those of some leading traders. In their Report, issued in the autumn of 1900, this committee recommended twelve as the earliest age at which pupils should take up secondary subjects; that they should then learn thoroughly the elements of Science and the modern languages taken; and that instruction in Arithmetic, History, and Geography should have a commercial colouring. They

favour the creation of a Faculty of Commerce in the University—a point to which Lord Rosebery referred in his Rectorial Address to the Glasgow students—with a Degree in Commerce; and emphasise the importance of amalgamating the various examination agencies in one National Board.

E.—The Intermediate Educational Board for Ireland, in whose annual Examination Programme there are, besides a Preparatory Grade confined to the elements of general subjects, Junior, Middle, and Senior Grades, in each of which recognition is given to the "commercial" aspects of various subjects. These are: English and the French, German, Spanish, and Italian languages, with Shorthand and Book-keeping. Under "Commercial English" fall Geography, History, Précis-Writing, and Copying Manuscript (the last a feature which is strangely wanting in most other syllabuses).

It should be added that the various Bankers', Accountants', and Actuaries' Institutes or Faculties have organised special instruction and examinations for their students.

Strenuous efforts have repeatedly been made by the Chambers of Commerce to induce the Government to subsidise Commercial Education by annual grants to be specially allocated to it, the proportion which falls to this branch of Technical Instruction having been found altogether inadequate. No encouragement has been given to this demand in the form in which it has been presented; it is manifestly undesirable to revive the now discredited old South Kensington method of paying for each Science and Art subject separately. There can be little doubt, however, if the tenor of the reply of the Education Department to the Bradford Memorial of 1898 is to guide, that when Local Authorities have been constituted, under further promised legislation, the aid desired will be forthcoming. Statesmen of all parties recognise the urgency of the case. The executive of the Association of Chambers has advised the Board of Education that they cannot recommend the establishment of one National Examination unless provision is made for recognition of special local requirements. As things are, no expert inspectors have

been appointed under the Board of Education Act; and it would seem probable that any such inspectors will, in the future, have, subject to the approval of the Central Office, to be appointed by the Local Authorities, as recommended by the Royal Commissioners, although that would involve a larger draft on the National Fund than if, in view of uniformity of standard, National Inspectors of Commercial Subjects were appointed. In any case, we presume there would be a Chief Inspector attached to the Central Office.

It will be observed that little has yet been done towards training teachers of commercial subjects, although we are not behind the Continental countries or the United States in this particular. The London County Council has but allowed a few travelling scholarships to persons who should study the organisation of foreign commercial schools.

An International Association for the promotion of Commercial Education is now being formed, with a provisional committee, a list of the members of which has been given in the Journal of the German Association. The Inaugural Meeting of the new Association is expected to be held at Zürich in July, 1901.

LITERATURE: see at end of Chapter I.

CHAPTER I

ORGANISATION OF COMMERCIAL INSTRUCTION

"A youth cannot have a greater kindness done to him than to be initiated early into the future business of his life."—GOETHE.

IN the Introduction we have disposed of so much of the general topic as is descriptive, and now approach the consideration of questions of policy, of construction, as affecting the further development of this side of modern British education. We shall keep in view the aid which may be derived from what has already been done, especially in countries ahead of our own, or use mistakes made as themselves indicative of difficulties or suggestive of another course of action.

The main problems which meet us are: (1) To what extent, and from what age, may specialisation be encouraged during the educative career of our young people likely to earn their livelihood in the pursuits of commerce, of industry on its commercial side, or in business of any kind in which there is a commercial element? (2) Shall special schools be established, or only commercial sides in existing schools?

In respect of the first question, three forms of opinion claim attention. There are persons who, in the interest as they suppose of the intellectual side of education, and from fear of making boys into machines, not into men, would uncompromisingly banish all considerations of the future material welfare of pupils from their early training. We do not find, however, that they allow of the application of their principle to the training of boys whose future means of livelihood, lying outside of industrial or commercial callings, nevertheless

demand some shrewd calculation with regard to the chances of material success, as distinct from mere "*kudos*." The race for money prizes in "scholarship" on the part of those aiming to earn their bread by teaching, who will be subject to ordinary economic laws, grows keener year by year; and there appears to be no just cause for finding some other word than "commercial" by which to characterise such competition. The apostle of modern culture, whose words are transcribed above, considered that the educative process goes on throughout life; so thought the scholar of Hawarden; whilst the late Bishop Creighton said that the chief part of anyone's education is what he gives himself. Such, too, is the idea of every advocate of commercial education worth his salt. Professor Gustav Cohn would like to see an end put to German *Handelsschulen*, and talks of "*Fertigkeiten*" (for which see *e.g.* chaps. ix.–xi. below) being suitably learned in offices, without stopping to inquire if there is anyone there to teach the benighted clerk. "Picking up" is not learning. There seems, therefore, to be no need of further parley with this sentiment. The clock, indeed, cannot be put back; otherwise, with this view and that to be next stated alone to choose between, the present writer would not part company with its advocates.

Another class of people take a purely Utilitarian view of school instruction: they would clear the programme of whatever is not distinctly "practical." No more do they believe in a Theory of Chemistry or of Book-keeping than in that of Grammar or Geometry. They share part of the incredulity—to speak plainly, the ignorance—of the first school. To say nothing of their representation in this country, save that their number although perhaps decreasing is, we fear, still legion, they are in force in the United States, France, and Belgium, as came out, with regard to the last-named country, at the Antwerp Congress. If some children in Japan seem sacrificed to this idea, the same cannot be fairly said, from the record above given, of young Italians, because, as remarked by M. Strauss at the Venice Congress, the children of southern develop intellectually faster than those of northern lands. Under no

circumstances, however, can there be in any country real training of the reasoning faculty with the system now before us; and it is imperative that for the Profession of Commerce there should be no trifling with the claims of mental training. The odious association which readily attaches to the epithet "a nation of grocers" (*épiciers*) would rightly stigmatise a people that should give general acceptance to the principle of the second school. There remain those, the number of whom is happily increasing, that, having once crossed the Rubicon, think not of turning back, who do believe in Commercial Education, fruit of Commercial Instruction, as a branch of liberal education, which may precede office training, active or passive; and the present writer is one of such as have by experience been able to translate their creed into positive practice. Healthy specialisation they have found practicable and advisable. There is but little difference of judgment amongst them as to the age at which the pupil should begin to undergo the specialising process. Our own view will appear lower down in detail, but an answer will first be offered to the second question which has come before us.

Whether special commercial schools shall be established, or only modifications made in existing schools of the ordinary type, depends on considerations of convenience, economy, the various descriptions of pupils, and, accordingly, the scope of studies attempted. We have in all this to make good our reputation as a practical people, which has been on the wane for some time: we must look to the circumstances of our own land, and not start special schools simply because others, even all, have solved the problem in a way that received emphatic approval at the Antwerp Congress, or because some states, as Bavaria or Switzerland, have commercialised their already existing "modern" schools with none but poor results. There is the English love of compromise and dislike of change on a large scale; in other words, that blending of conservatism with progressive tendencies in the national character, already spoken of, which determines whatever course is taken in this country. Such are the elements of

the problem that would occur to most readers. Convenience is a question of local conditions; economy, that of national expenditure; but the variety of people who need instruction is here the dominant factor. We shall revert to these considerations when the constitution of such schools is reached below. We must differentiate the requirements of (α) those pupils destined to become industrial employees, who yet may eventually become employers; (β) such as are likely to become ordinary employees in manufacturing or mercantile or financial establishments, or to enter the lower division of the Civil Service; (γ) those who aim at the status of skilled clerks, with whom we may associate such as are likely to conduct retail concerns; (δ) pupils who may have early to take part in the management of mercantile, financial, or transport business, whether themselves employers or managers, or aim at yet higher positions as companies' secretaries, or employment under Government, or municipalities, etc.; and (ϵ) intending teachers. It is clear that a considerable amount of the work of instruction of all such must be divided between schools of both kinds. We may now outline a graduated system of institutions to meet the respective needs of students classified as above, and of authorities regulating the same.

We assume the creation of Local Authorities through legislation supplementary to the Board of Education Act; such bodies including, besides the "persons experienced in Secondary Education" (précis of Incorporated Association of Headmasters' Scheme), representatives of the Chambers of Commerce, to be subject to the exclusive control of the Central Authority.

I.

The needs of the two first groups of learners will be met by a commercial side of *Higher Elementary schools*, such as the higher grade (science) schools regulated by the Scottish Code (which scholars may enter who have obtained the "merit certificate"). The minimum age for commencement we would put at ten; the pupils should be those not promoted, by

means of scholarships, to the lower division of a school such as we shall next describe; the duration of the complete course should be four years, so as to fall within the English time limit of fifteen for higher grades; and the start with the subjects specially regarded in this book should be made from twelve to thirteen years of age. The first half of the curriculum would thus continue to consist of purely rudimentary work; and "practical" instruction would be confined to the elements of each subject, and be thorough, as far as it goes. In the syllabus of the second part of the period, English Literature, Modern Languages (for which the Scottish Code requires eight hours a week in the second year and ten in the third), the Theory of Book-keeping, Commercial Geography and object-lessons on Trade Products, Simplified Economics (as presented *e.g.* in Palgrave's Reading Book, or Jevons's Primer, used for a reading lesson), should figure with elementary Mathematics, Science, Drawing, it being understood that the general education of all pupils will be maintained to the end. What specialists understand by counting-house operations should be rigidly excluded; but it is equally important that Shorthand should be acquired now, and that during some part of the last year two weekly lessons should be given as "Business Training" for junior clerkships (by the aid of a manual like Jenkins's *First Guide to Office Work*), one of these serving as a reading lesson and the other as a writing lesson. Evening continuation classes should be provided for the use of those ex-pupils who are employed in offices, in which they could learn the superstructure, together with Type-writing, and thus keep abreast, if not also somewhat ahead, of their daily duties. Let it be said, however, once for all, that no dependence can be placed on the attendance of such students. That the experience of those concerned in evening work is the same all over Europe came out at the Paris Congress in 1900. In large cities the time of leaving off work in offices is very irregular; the majority of clerks are either physically unequal or mentally not in the mood to spend their hours of recreation in this way. Hence the

primary importance of securing, to such, a certain amount of this instruction before they enter upon office life. A reader having access to the Report of the London Technical Education Board's Sub-Committee (February, 1899) should consult the evidence as to this of Messrs. Chalmers, Hendriks, Capel, Lorimer, Schorer, Forbes. The London School Board have found it out in connection with their evening continuation schools, supported though these are by ratepayers' money.

Whatever regards schools of this kind depends on the survival of the policy pursued by the Boards, which has been jeopardised by the decision in The Queen *v.* Cockerton, and on the course pursued by the Board of Education, whose interpretation of their minute of May, 1900, seems to require that a school seeking the higher grants must teach Science mainly. The English age limit of fifteen referred to above is replaced in Scotland by eighteen.

II.

Intermediate schools, each being divided into a lower school and an upper school, the latter with an industrial side and a commercial side, respectively emphasising Science and Modern Languages, will afford training suitable to those who aim at obtaining positions as superior clerks or at managing retail concerns.

A.—Through the lower division of such a school all its pupils (including any promoted, without scholarships, from an elementary school) would pass until they reach fourteen, taken as the age when, under normal conditions, they should have assimilated an adequate amount of exclusively general culture to admit of their approaching the study of subjects with which they will have to remain familiar throughout life. These, however, until the termination of their school life, would be learned mainly on the theoretical side, and concurrently with the continued study of general subjects. The curriculum of the lower division the writer, after long consideration, does not hesitate to say should include Latin, taught in a rational

manner and with constant reference to its relation to modern languages. The discipline this affords is of immense *practical* value, whilst ever keeping the minds of those properly taught at the higher level. The rest of the work here done would be that common to existing middle-class public schools. But it is in the two last years of this stage that, in the opinion of the writer, the Theory of Shorthand ought to be learned. When a pupil has had some years' practice of longhand he may proceed to acquire the other method without needless delay. Business men have no monopoly of this process, which is of general utility (cp. *ad fin.*); and to postpone attention to it until school-days are over means very often that it never will be learned, or that precious hours must then be spent to acquire it which will be wanted for study less mechanical. The study of shorthand connects itself with that of spoken languages in general, through phonetics. Practice in speed will find its proper place in the work of the upper school, of which we must now speak.

B.—Our student, let us suppose, has reached the age of fourteen, and is intellectually fit to be sent up. The question arises, should choice of a fresh department be limited to two such divisions already proposed? Why not add a third, calling it "professional," as in Belgium? The answer to this is that financial considerations would ordinarily stand in the way. Our schools are not maintained by the State; and, except in populous centres, it seems very improbable that the number of pupils in ordinary middle-class schools likely to become solicitors, medical men, or clergymen would allow of any such staffing of the school as this would entail. Moreover, the needs of such would be fairly met by placing boys intended for Medicine, the Ministry, Engineering, Architecture, etc., in the science department; whilst those likely to become solicitors would very appropriately be classed with future clerks in banks, or insurance, railway offices, etc., as pupils for commercial instruction. As regards the main body of pupils in each department, besides the fact that they could be taught together, according to attainments, in certain

mercial colouring," which some prefer to speak of. Although Sir Philip Magnus, in his magazine article entitled "Commercial Education," in 1888 proposed the organisation, in higher secondary schools, of a separate Science Division, the present writer, from the circumstance that the respective requirements of students interested in Production and those of students concerned with Exchange seem to have closer affinity than the needs of their respective comrades in schools of the preceding type, has come to the conclusion that the same reason for the separation of the students destined to control Industrial and those marked out for conduct of Commercial undertakings, here loses much of its force: the one class of students will do well to learn more of that which lies on the Commercial side of work, and the other to receive greater instruction in that pertaining to Production than the respectively corresponding students below. And further, the "commercial colouring," as people say, of Sir P. Magnus's "modern language" group becomes less marked than before. Gladly, however, would we defer to the opinion of one so well fitted to express a judgment from either point of view, that this is not a point on which we desire to insist; and whichever way it is settled, our proposed syllabus will be the same. This is: English, German, French, Mathematics, Science, Geography, History, Economics, and Commercial Law. The Technical Education Board's Report ventures to add International Law, without stating whether Public or Private law is meant: we regard either indifferently, as out of place at this stage of instruction. Again, the writer cannot support the unfortunate, doubly vicious suggestion there made (p. x.) that "some amount of specialisation in terms of the business world would perhaps usefully in the last year be taken as an *alternative* to a course in elementary economics and the rudiments of law." Such terminology, if learned at all, should be acquired systematically in the course of continuous work; and no instruction can be educative, can be other than *cram*, which violates this principle. On visiting a German class in one of the London School Board's evening

commercial schools in 1899, we found the teacher going through a list of heterogeneous terms contained in an old examination paper of the Society of Arts, and asking the students for the German equivalents, on the eve of an examination held by that body. It is to be feared, indeed, that such a kind of thing, whether called "coaching" or aught else, will go on until adequate inspection is the order of the day. Encouragement to "pick up" or to impart knowledge in a superficial way is ever to be condemned. The recommendation (p. x.) to exclude "commercial bureau" work from the curriculum of the first-grade school we thoroughly endorse; the more so, as pupils of such schools will ordinarily have more command of later specialised instruction of that kind than the less-favoured pupils of intermediate schools, in whose behalf we have asked for the mild dose of practical exercises in routine above specified.

As regards the time-table, reference may be made to that given in an Appendix as applicable to a three years' course.

The equipment of these schools should be much as that proposed for those more numerous: any difference is one of financial resources.

A pupil of any higher secondary school who, leaving it, seeks further instruction would find it at the institution which we shall next outline.

Having, however, delineated institutions respectively of the primary and secondary types, let us previously consider some points connected with the working of these in particular. First, the staffing of such schools. That a plentiful supply of teachers of these subjects should not exist can cause no surprise: difficulty is still felt even in Germany, after an experience of fifty years, in filling vacancies. In England the difficulty of the very initiation of a scheme is accentuated by the scanty remuneration offered, so that competent specialists hold back; their existence being in the meantime discredited. The dearth of suitable men has been as much exaggerated (cp. Mr. Macan's remarks at the London Conference in 1898) as the value of office education.

Be this, however, as it may, the continuous training of candidates for the teaching profession on its commercial side calls for urgent attention. If asked what must be the qualifications of such a man, we should answer that he should have three strings to his bow: he shall be a skilled instructor, a man of scientific attainment, and withal a practical man. None of the schools we have had before us would supply the full machinery for one-third of such training; but the institution the establishment of which we have still to consider could appropriately discharge well-nigh two-thirds of this function. It is assumed that those destined to teach would first pass through one or other of these schools as ordinary pupils, and that none would offer themselves for later special training except students with conscious natural aptitude and predilection for the work. Method we shall have something to say about in each subsequent chapter; and here do no more than recall what was said, with reference to general education, by Professor Rein, of Jena, at a Teachers' Vacation Course in London, that there is a special method appropriate to each subject as well as a general theoretical method, both of which should be mastered by an intending teacher. This is equally true of commercial instruction. We may also reproduce the well-expressed dictum of the headmaster of a London school at a recent conference: the instruction of boys in such schools "must render their minds capable of receiving and assimilating new ideas, train their powers of judgment, give them habits of investigation into points of detail, and wide powers of sympathy with interests other than their own."

The text-books used should of course be up-to-date; aid to the selection of these will be offered in each succeeding chapter, and works helpful to teachers as such will be suggested.

The various schools should be inspected by experts, under effective supervision of the Central Authority, acting by an expert chief inspector so as to secure a certain amount of unity amid all local diversities (cp. Introduction, *ad fin.*). The appraisement of such instruction by an inspector of

the traditional stamp would be worse than useless. The subject was discussed in the German Imperial Senate in March, 1899, when the Minister acknowledged its importance. That examinations for Leaving Certificates should be on the actual curriculum followed by any school is a commendable recommendation of the Technical Education Board.

Few people are satisfied with the present English examination system. What with examinations regulating instruction, multiplicity of Examining Boards and consequent variety of standards, with different ways of valuing answers, reform is much desired. Examiners are still often chosen outside the ranks of persons having teaching experience. Mr. Labouchere recently classified them as (1) those who have some theory to air; (2) such as seek to discover what the candidate does not know; (3) those who aim at bringing out what he does know, and alone are fit for the work. Occasionally one may notice, as in the first of the examinations, which collapsed, of the Oxford and Cambridge Joint Board, papers framed by persons manifestly destitute of practical acquaintance with that proper knowledge which they were presumably prepared to accredit. Questions set in arithmetic papers have frequently been reprobated by men of business, whose opinion is of course worth taking on a subject of the first commercial importance. Do not many examinations invite cram? Professor Bonamy Price, whose article in the *Princeton Review* of seventeen years ago has already been referred to, there well said that "*vivâ voce* examinations would at once crush the cramming which is paralysing so fast the educational machinery of England." Examinations, it would seem, "stand for so much obsolete whipping," as said Mr. Barnett, H.M.'s Inspector of Training Colleges, at the Teachers' Winter Meeting in London during the first week of this new century.

IV.

The last, or tertiary, stage of commercial instruction may seem remote from the earliest grade which has been under

consideration; nevertheless, it has been the writer's aim to prepare the way for the establishment of a vital connection between the two. Our intelligent, hard-working elementary school pupil, whose youthful dream is to pursue the career of a successful man of business, may just as well have his path to a commercial college smoothed for him as his school-fellows are aided on either side of him, one of whom, indulging the more ambitious project of distinction in a "learned" profession, is, by dint of scholarships, shifted from one grade of school to another until he finds himself Fellow of an Oxford or Cambridge College, whilst the other with ability for science, etc., is helped until he reaches a Polytechnic. Thanks to funds at the disposal of county councils, the public is becoming accustomed to this order of things.

We have supposed that a higher elementary course ends, for one concerned in it, at the age of fourteen; that an intermediate school-boy bids good-bye to the scene of his special instruction when sixteen or seventeen; and that a young fellow educated in a first-grade school finds his emancipation at nineteen, if not eighteen. Is there any institution which can be planned where contemporary "alumni" of these various academies, all with something in common of interest and purpose, could ultimately meet, if so be for only one year? The Introduction has answered this by anticipation, with regard to Continental countries in particular.

At the outset, however, of unfolding this part of the scheme we are confronted with the hesitancy or objections of some who have little fault to find with such proposals as those hitherto submitted, but dislike the idea of a group of special institutions with "Commercial Education," pure and simple, on the flag; and one's faith in the cause, if not supported by increasingly strong convictions, might well grow faint before the redoubtable criticism of such an important, although slowly progressive, body as the Chamber of Commerce of the chief commercial city on the Continent. At the London Conference in 1898, and before the Technical Education Board's Sub-Committee, a gentleman, universally

respected, contended that any idea that a special School of Commerce is needed is an illusion, and—"unkindest cut of all" —predicted that if it were established the scheme would fail. Influenced, it would seem, by a statement in the Hamburg Chamber's Annual Report for 1897, that there is no pure Science (may we say Theory?) of Trade, that what is called Commercial Science (*Handelswissenschaft*) is an "empirical science," which can only be learned in practice (see Introduction and below, chap. vi.), he cited this as apparently conclusive, made as it is by men who ought to know. Let one, therefore, who is familiar with Hamburg, and also able to speak the mind of those in Germany with whom he thoroughly agrees, take his reader into the atmosphere from which this adverse sentiment has emerged. Traders native to Hamburg are largely imbued with notions derived from the days of the "Merchant Adventurers," whose chief seat the old Hanseatic city became; in other words, with English ideas of the days antecedent to the Commercial Revolution. Here one must expect that old views will die hard, and Hamburg has not smiled on the new régime and the general awakening that dates from 1870 ("among the faithless, faithful only he"). We must not be *hard*, however, on such good "commercial friends" as our traders have in its burghers, who are no worse quidnuncs than many in this country, for they likewise "live and learn." The service in 1896 cheerfully rendered—according to their Report for that year—by the leading German Chamber in reforming the education given in the Real-gymnasium of the Johanneum might well have come twenty years ago, when its Director used to advise his pupils on leaving to forget, as soon as possible, all they had learned. The fond wish expressed in that Report, that all pupils remained there until the age of eighteen, marks a great advance on the traditions of a community whose sons used to be taken to business at an age that we suppose would horrify their English ally. Yet more, what says p. 30 of the 1897 Report, which cannot have escaped his notice, as the immediately preceding context of the passage was used by

Sir B. Samuelson? There we are told that diligent use of instruction in the continuation schools is needed in addition to "practical life" for "thorough acquaintance (*gründliche Kenntniss*) with the branches of knowledge indispensable to traders." This is virtual surrender of the position. The quality of instruction is not to differ with the time of day at which it may be given; and according to their own showing, for instruction, about which they are otherwise discreetly silent, the young "apprentices" of Hamburg must look to the schools. All that is meant by such subjects being "learned" in practical life is that the esoteric practice (*Kontorarbeiten*), treated as commensurate with *Handelswissenschaft*, will be there "*picked up*," much as in an English office, about which there is no controversy beyond the vicious results it engenders. There seems in this to be more excuse for the English than for the Hamburg merchants, who engage the services of "*Lehrlinge*" (apprentices) for no stipulated salaries: they do but annually receive a "Christmas-box" (*Weihnachtsgeschenk*), whilst the English youth, through apprenticeship having here fallen into desuetude, has no claim upon his employer for tuition. It is true that the Hamburg employer receives no premium, but he teaches his clerk little more than the Englishman does. Nevertheless, any reader who had not been behind the scenes would suppose that Professor Cohn, representing Germany, and Sir B. Samuelson, England, alike really meant that adequate systematic training by a principal or responsible assistant is to be had in modern commercial offices—an indisputable illusion. The latter, apparently on the authority of a remark in the 1897 Report as to "students' attractions," said that the Hamburg merchants have no faith in the Leipzig Institute, any more than he believes in that at Antwerp (see Introduction), which has not had, according to Sir B. Samuelson, the advantage of turning out Captains of Belgian Industry. This must strike most readers as a curious objection to bring against it. They might consult the Report of Mr. Gastrell, our Commercial Attaché at Berlin (Diplomatic and Consular Series, No. 468), for an official opinion of the

Leipzig Institute, and take the word of the present writer, who has been told by one of the most successful of the present generation of Liverpool general merchants that he could not perform the operations he does on the Exchange and in his office—giving him constant advantage over his competitors—but for the methods he learnt during three years spent by him at Antwerp, and that he has good reason for congratulating himself on having gone there at a time when no School of Commerce was at the command of the young men of this city.

We have no intention, however, of being one-sided. Have the Hamburg Philistines any justification for discrediting the Leipzig lore? We share their distrust of the "bureau" work at an inland place so far as Foreign trade is concerned: it is surely a mistake for schools removed from the seaboard to attempt other than Home-trade methods. A student likely to need those peculiar to Export and Import transactions would do well not to select a place, for further example, like Neuchâtel, where "practical" work is being taught that would excite the sarcasm of one of our young fellows. Moreover, some Leipzig laureates themselves have been responsible for a grievance at which the 1897 Report gently hints: they should not think too much of themselves, of their having studied *Handelswissenschaft;* and, whether remunerated or not for their toil, should not absent themselves from it at their own sweet will. Things have not reached that pass amongst their distanced English counterparts, who have the wholesome example of sterner German virtue in their midst (cp. chap. xii.). As a remedy, let the employers be more strict, and above all, promote the establishment of a High School of Commerce at Hamburg under their own control.

Again, a London headmaster, from whose Conference Paper Sir B. Samuelson has sought support for his attitude, positively stated in it that he earnestly desired, as a result of the Conference, the establishment of a Commercial College. And further, the view of a London colleague of the reverend gentleman referred to, which was expressed at the discussion on

Mr. A. Kahn's Paper read at the College of Preceptors,* that in a curriculum confined to commercial subjects, predominance of utilitarian methods would result in both mind and character being dwarfed, is a proposition which needs no defence if meant, as clearly it was, to apply to the plastic nature of youths still subject to ordinary school discipline, and not at all to students who have reached the same maturity as those beginning apprenticeship to the legal and medical professions. We know not if there is any other objection to meet.

An *Institute* or *College*, then, in which lectures and classes would be available specially in the afternoon and evening, respectively to meet the joint needs of such students as can give either whole time—for example, intending teachers—or part time by day, and for those able to attend only after discharge of normal duties (say from 7 to 9 p.m.), is the type of institution to which the reader's attention is now invited.

As here a fully independent start has to be made, questions of finance and government have precedence. The choice of organising and governing body, which in other countries usually lies between the State, a Municipality, or a Chamber of Commerce (if not Commercial Guild), would seem for England, as far as the Metropolis is concerned, to devolve on the voluntary combined action of the Livery Companies; in default of whose action recourse, it is believed, could be had to the Chamber of Commerce, if it be enabled by Government grant to bring such an Academy into existence. The policy of the Technical Education Board has hitherto been to spend no money on "bricks and mortar"; and if that be maintained independently of any further parliamentary grants, the residual agency would be a Company's school, which, however, if carried on for profit would be allowed to face the financial risk unaided. However the problem be solved, arrangements at London will largely depend upon the shape taken by the new University when its developed constitution has been disclosed. Outside the London area the difficulty does not present itself so acutely.

* *Educational Times*, May, 1899.

A glance at a few commercial centres will prepare the way for proposals made that commend themselves to the writer. The second mercantile city of the empire has already settled the matter in its own way, and perseveres in the face of what might seem discouragements from lack of support. We refer, of course, to the City of *Liverpool* School of Commerce, the work of which is carried on in the University College (see further in chap. xi.). *Manchester* would have the same to show if pupils were only forthcoming at Owens College, where, however, no inducement in the form of instruction in "Commercial Practice" has so far been afforded. *Leeds*, which possesses the Yorkshire College, the third constituent part of the Victoria University, would probably do as its Lancashire sisters, only with an impulse given to its action by the happily firm attitude of the West Riding Technical Instruction Committee in all that pertains to the interests of Commercial Education (cp. the evidence of Mr. Briggs before the London Board's Sub-Committee). At *Birmingham*—thanks to the determined action of the Colonial Secretary, whose fortune was acquired under the old conditions, but who has long, in the spirit of Lord Beaconsfield, read the signs of the times—a Faculty of Commerce in the University, of which Mr. Chamberlain himself is first Chancellor, awaits organisation: its inauguration is financially secured (see Introduction). *Bristol* and *Nottingham* will naturally continue to turn to account their University Colleges, or act to some extent through these. A College of Commerce would be welcome at *Hull*, which has known so well how to organise technical instruction; and also at *Newcastle-upon-Tyne*, if the writer know anything of his native place, with its College of Science affiliated to Durham University and Rutherford College, called after one of her sons, which have rendered priceless service to students seeking self-improvement. South Wales would naturally look to *Cardiff*, where also exists a University College. Crossing the Border, in the two influential cities of Edinburgh and Glasgow, which in this would know no rivalry, we find Universities whose adhesion

to ideas common to London and Birmingham has perhaps been foreshadowed by recommendations tendered by Scottish educationists (see Introduction). The Irish capital could adopt the same course; the example of *Dublin* being in this followed presumably by *Belfast*, possessing the Queen's College of the Royal University of Ireland. Thus a few large cities would suffice, in all of which either the views of those asking that the highest commercial education should be associated with institutions of university rank or of those that plead for an entirely independent status could be followed, according to the balance of local opinion: there is much to be said for either view, and rigid uniformity finds no general support. The conditions for the healthy action of such colleges which Dr. Wormell finds in environment of "clamour and pressure of business" here exist alongside of the calmer atmosphere of literary associations. But for the present purpose let the reader notice that the cities which we have enumerated as specially fitted to diffuse the advantages of the new culture throughout our islands, possess the organisation of county boroughs invested with jurisdiction corresponding to that of county councils. That is, you find the nucleus of a local authority in the local Technical Instruction Committee, which should have a commercial section representing the chambers of commerce in the district, whose voice must be heard in the provision of that which is truly calculated to serve its interests.

The cost of such colleges has been variously estimated at £10,000 to £20,000. Only three private benefactors have so far come forward; and the names of Passmore Edwards and Rothschild will be gratefully remembered in association with those of Mason and Whitworth. It remains to be seen if any will accept the suggestion of the Chancellor of the Exchequer, put forth at the Distribution of the London Chamber's Examination prizes in 1899: each opening of a private purse would, in welcome fashion, postpone the day of reckoning with the Government. The utterances of the Duke of Devonshire we do not regard as absolutely conclusive that his colleagues

will leave this to any successors, because it is known that many of their supporters feel strongly on the subject, and continued delay in appropriation of money to such projects may prove serious. In Prussia, where people are no less characterised by individual initiative and enterprise than here, as we may see every day, the more advanced education becomes, the greater is the share paid by the State. The Technical Instruction funds alone can at present be looked to; and any further parliamentary dole would, as things go, be disbursed by the local authority.

Mr. Macan, at the London Conference of 1898, suggested that the setting aside of £500 to £700 a year by county boroughs would procure money on loan, a plan which may have to be followed in default of any better. The students' annual fees, an abortive scheme of the London Chamber of Commerce, are put at £10; at Liverpool these are £25; whilst Mr. Macan hazarded a guess of £30 to £50,—so elastic are the ideas in the air from hazy apprehension of what is meant by Commercial Education or what your neighbour wants. In this connection, be it said, there is scope for the bodies disbursing present funds, which are in earnest on this question, to follow the example of Yorkshire and London Technical Instruction Authorities, in providing scholarships in aid of the development of colleges, as of the less specialised institutions.

The lecturers, who should also undertake genuine class-work (cp. Introduction, under Belgium), should be at the same time specialists and teachers; although occasional help might be sought from outsiders of reputation, as is already done at the London School of Economics.

The equipment of such an institution must of course be commensurate with its aims. Besides laboratories and a museum, containing in particular specimens of the local products and of the raw materials derivable from the countries with which the trade of the district is specially concerned, there should be a library worthy of its importance; and we should look for an apartment fitted up as an office, with usual requisites, and in particular those found in a large general

merchant's establishment. The latest appliances would be represented.

The pupils should be of the minimum age of sixteen, admitted by an entrance examination, from which those would be excused who should bring leaving certificates from intermediate schools. The full day course should last three years. The Programme of Studies set forth in the Circular of the London Chamber, which was issued shortly after the Conference of 1898, stands thus:—1. ECONOMICS and allied subjects: (*a*) History of Economics and Trade; (*b*) Political and Commercial Geography, including Trade Routes; Study of Statistics. 2. MODERN FOREIGN (including Oriental) LANGUAGES. 3. BUSINESS METHODS: (*a*) Commercial Arithmetic; (*b*) Book-keeping and Accountancy; (*c*) Commercial Bureau; (*d*) Machinery of Business, Banking, Insurance, the Stock Exchange, Lloyd's, etc.; (*e*) Study of Commodities; (*f*) Transport and Means of Communication. 4. LAW: (*a*) Commercial Law; (*b*) Industrial Law, Factory and other Legislation; (*c*) Principles of International Law; (*d*) Fiscal Legislation, English and Foreign, Commercial Treaties. 5. LOCAL INDUSTRIES and such branches of Science and Technology as may be specially applicable to the trade of the district, if not otherwise provided in the locality.

We have reproduced this scheme, as it embodies the mature judgment of a body that has taken all conceivable means of determining the scope of work to be undertaken by a commercial college. It, in combination with the proposals made by the Advisory Committee of the Birmingham University, will be kept in view in so much of the chapters following as we shall indicate concerns the tertiary stage at its lower and higher levels respectively.

Under 3 (*c*) or (*d*) we would include Typewriting as a subject, whether in day or evening classes. Instruction here should be aided by occasional visits to commercial establishments, by arrangement, under the guidance, of course, of the lecturer whose department is concerned. This is important with regard to the right training of the students who will

become teachers. The practical character of the institution must be maintained in England, if nowhere else. Thus it would be calamitous if one of our colleges were to merit such criticism as that bestowed by the *New York State Gazette* on Mr. Seth Low's proposals for a like institution there, which would have given prominence to Rhetoric and Sociology, and alienated the support of the New York traders. The more a syllabus is weighted with such subjects the less likely are students to keep in touch with trade as it is. The *Gazette* well said, "The training must have theoretical knowledge as its groundwork, practical efficiency as its aim." Intending teachers would as pupils learn, from observation of the way their fellows are handled in class, how they themselves will have to act when their turn comes.

The Business Practice work, a designation which we prefer to the less generic term "Commercial Bureau," here acquires real importance. The exact nature of what is taught will depend on the colour of the business that predominates in the locality. The needs of Leeds are not those of Hull, and to teach the work prevailing in the Liverpool offices would be a mistake, although not in the same measure, at Manchester or Birmingham. London and Glasgow would require liberal courses, for both industrial and mercantile office-work will claim attention in these cities; whilst in the Scottish capital, as well as English metropolis, there are the operations of financial business in its various forms to think of. The distinction between Domestic and Foreign trade, to which reference has been made in connection with the different environment of Hamburg and Leipzig, must not be ignored. As the writer thinks, a student who addresses himself to the study of import and export operations at the college of a sea or river port will have quite enough to do without encumbering himself with home-trade methods: a general knowledge of these he should have obtained before entering such a college. At Liverpool, only the methods that obtain in import and export trade are taught, but these thoroughly; and a student bent on wandering into the domain of the home trade does so

on his own account. Students attending evening classes in this work have here an advantage over day students. The former bring their various experiences to the class, where they communicate points which the teacher can elucidate to the common advantage of all, and he himself remains the better in touch with the changes that ever and anon take place. It is worthy, therefore, of consideration by those who organise such classes whether the day students should not receive this part of the college instruction in the company of the continuation pupils.

The examinations of the London Chamber for senior certificates serve the requirements of the moment. For a full certificate, having the character of a diploma, the Chamber at first required that a candidate should, at one and the same time, pass in the necessary number of the subjects prescribed, with the result, as might be expected, that no one has yet secured the coveted distinction, although a considerable number now hold several separate certificates. The present writer urged privately the recommendation made by Dr. Wormell, in one of his valuable papers on "Commercial Education,"* that the diploma should be "obtainable by accumulation of successive passes." This concession, for some time withheld, seems to have been in force for some three years.

It is desirable that there should be an annual Exhibition of work done by the students, which business men would thus be able to judge of. The exhibit should show the whole of a transaction worked out. An example of a Liverpool student's examination will be found in an Appendix; this went the round of several local traders, and was pronounced by all to be excellent. Such is one of the best modes of "inspection," helpful alike to students and to a school itself. Each stage of instruction should be represented by three exhibits, respectively labelled as in the judgment of the college, "good," "moderate," "bad," thus engendering confidence that the results are fairly representative of the college work.

* *Educational Times*, April, 1890.

In this way any institution of the first rank would approve itself as, what Dr. Wormell has conceived of in his Congress paper of 1897, "a Temple of Commerce, where merchants prepared to pay the price could find an employee with all the qualifications they may require"—words of one to whom, as to Sir P. Magnus, the young of this generation are indebted for long, consistently sympathetic advocacy of this cause.

V.

There remains but one sphere of study and instruction, which will be the top stone of the arch. The relation borne by the School of Jurisprudence at Oxford to the work in chambers of one reading for the Bar finds its analogue in that which will exist between an Institute of Commerce and a *Faculty of Commerce* of any University at London, Birmingham, or elsewhere. Some university men on graduating B.A. would prefer to proceed for some time to an institute, if intending to join, within measurable time, the ranks of mercantile *entrepreneurs;* others, looking forward to the higher walks of industrial enterprise, or of salaried employment, whether under Government (Board of Trade, Commercial Attachés, Agents, etc.), or, as in America, on the responsible staff of railways, or as professors, etc., would, it is thought, prefer to take up a post-graduate course for a year or two more of their life at the University if anything there be sufficiently inviting. London residents have something of this kind already at their doors in the School of Economics, which should ere long leave its present shelter to occupy the premises so generously provided by Mr. Passmore Edwards; and we have seen what advantages await the first graduates of the Midland University. In such calm retreats scientific treatment of subjects that concern the economic world will reign supreme, in no competition with methods of instruction that admit Utilitarian considerations, much or little. Special-

isation may run riot, but it should bear rich fruit, let merely "practical" people say what they will.

Let us summarise the steps by which the success in life of those may depend who pass through any of the stages of education discriminated in this chapter, including the early career of such as, commencing at the lowest rung of the social ladder, are destined by their abilities and use of opportunities to reach the very top. (1) The pupil of an elementary school of either complexion would qualify for at least the fifth standard of the English code before passing to a higher primary school; afterwards taking continuation classes (if such weather the storm raised by the judgment of the High Court in The Queen *v.* Cockerton), unless in the meantime aided to enter an intermediate school, on the road to reaching an institute, if not a University. (2) An intermediate school boy would go through the lower school and then the upper, which he could leave for a course at an institute; to be followed by work with a firm abroad (preferably a commission house) for a time; or contenting himself with the evening classes, if he cannot escape the present system of early office grind in England; but if he mean to adopt the teaching profession definitely, to be a day student. (3) A higher secondary school boy would take the first grade modern side curriculum, and then go either to a University direct, or, in view of work as a teacher, in the first instance to an institute, rather than forego altogether instruction in Business Practice (he would not suffer in this way at Birmingham), and subsequently, it might be, to a University; or, again, as at London, the two concurrently.

In the next chapter we shall enter upon the formal treatment of the various subjects of instruction so far as such will come in at the respective institutions which we have distinguished, and in particular with reference to those of the secondary order, round which most interest gathers. Arbitrary distinctions sometimes made between those subjects which are "purely commercial" and such as are not minister little edification. Book-keeping (the stalking-horse of many

doctrinaires), Shorthand and Typewriting are, outside the atmosphere of fiction, subjects of general importance. Mercantile Book-keeping is but a fragment of an immense study; whilst one or other of the two manual arts is employed in the cabinets of monarchs, littérateurs, on the Bench, by chiefs of armies, in the journalistic profession, by clergy. Extremes must be avoided. Mercantile Calculation and Correspondence (chap. xi.) may justly be deemed technical subjects, which almost exclusively measure the present writer's educational orthodoxy: so far, at least, he trusts to carry every reader with him. As it is, however, he adheres without qualification to a proposition first contained in his Congress Paper of 1897: "A good method with *any* of the new subjects will do more *educationally* for boys with no special aptitude for the old culture than the best of the now discredited methods of secondary schools." He confined the statement, as he always would do, to those traditional methods which all sensible persons agree in condemning, and to boys of average ability; but this sentence, which in English had been unassailed, when reproduced in French for a Congress Paper at Antwerp in the following year, was fastened upon by a fellow-countryman for uninformed, misdirected criticism. The greater advantage to a boy of reading Homer's account of the Trojan campaign, however feebly, over expert, discriminative reproduction of a masterly speech or thoughtful sermon, and correctly reading one's hieroglyphics for conversion into longhand, represents the attempt to regain the writer's adhesion to a view the error of which every day's experience does but more and more confirm. It is the teacher, not his subject, but his method, which is responsible for failure at any point whatever along the line. The dispersion of his powers over several subjects may prejudice his success: few men could teach Economics, German, and Book-keeping equally well.

Such would have been our last word in the present chapter had not the writer met with the following extract reproduced by the *Times* during the first week of the Twentieth century from an issue in the first week of the Nineteenth: "At Mr.

Simpson's Academy, Wodencroft Lodge, near Gretabridge, Yorkshire, young Gentlemen are boarded and accurately instructed in the English, Latin, and Greek languages, Writing, Arithmetic, Merchants' Accounts, at sixteen guineas per annum." Our great Victorian poet indeed wrote—

> "Not in vain the distance beacons. Forward, forward let us range,
> Let the great world spin for ever down the ringing grooves of change."

Nevertheless it will ever remain true, as Professor Bonamy Price said seventeen years ago in the *Princeton Review*: "*Traders and Merchants refuse to stand at a lower level of culture than that reached by the gentry.*"

As to the Scholastic Profession, see Jones, *Guide to Professions and Business*, pp. 77 ff.

LITERATURE

Cohn, *Volkswirthschaftliche Aufsätze: 10 Aufsatz, Ueber Handelsakademien.* Stuttgart, 1882.

Cohn, *System der Nationalökonomie, 3 Band. Kapitel: Handelswissenschaft.* Stuttgart, 1898.

Bonamy Price, *What is Education?* London.

Jourdan et Dumont, *Études sur les écoles de commerce, etc.* Paris, 1886.

Léautey, *L'enseignement Commercial et les écoles de commerce, etc.* Paris, 1886.

Sonndorfer, *Der höhere kommerzielle Unterricht in Oesterreich.* Vienna, 1887.

Reports on Commercial Education presented to the Associated Chambers of Commerce. London, 1887.

Congrès International tenu à Bordeaux. 1886. *Compte rendu des travaux.* Paris, 1887.

Magnus, Paper in *Contemporary Review* on "Commercial Education." London, 1887.

Congrès International de l'enseignement . . . commercial tenu à Paris. Compte rendu des travaux. Paris, 1889.

Wormell, Papers on "Commercial Education Abroad," in *Educational Times.* London, 1890.

La regia scuola superiore di commercio in Venezia. Venice, 1891.

Commercial Instruction organised by the Paris Chamber of Commerce. Paris, 1893.

Pollard, chapter on "Commercial Education" in *Essays on Education*, edited by Lyttleton. London.

Engelmann, *Die Kaufmännischen Fortbildungsschulen zu Berlin.* Berlin, 1895.

Zieger, Article, "Handelsschulen," in Rein's *Encyclopadisches Handbuch der Pädagogik.* 1896.

Congrès International de l'enseignement . . . commercial. Bordeaux, 1895. *Compte rendu des travaux.* Paris, 1896.

Report of International Congress on Technical Education held in London. London, 1897.

Wolfrum, *Bericht über die Oeffentliche Handelslehranstalt zu Leipzig.* Leipzig, 1897.

Congrès International de l'enseignement commercial tenu à Anvers. Antwerp, 1898.

Report of the Conference on Commercial Education held at the Guildhall, London. London, 1898.

Diplomatic and Consular Reports, Miscellaneous Series, Nos. 477–508. Foreign Office, 1898.

Diplomatic and Consular Reports, No. 468, Report on the Commercial High School at Leipzig. Foreign Office, 1898.

London Technical Education Board: Report of the Special Sub-Committee on Commercial Education. London, 1899.

Bryce, Article, "Commercial Education," in *North American Review*, June, 1899.

Gibbins, Article, "Made in Germany," in *Fortnightly Review*, June, 1899. London.

Atti del Congresso Internationale per l'insegnamento commerciale tenuto (1899) *à Venezia.* Venice, 1899.

Report of the Commissioner for Education for the year 1897–98. Washington, 1899.

Grigoriev, *Notice sur l'enseignement commercial en Russie.* St. Petersburg, 1899.

Zeitschrift für das gesammte kaufmännische Unterrichtswesen. Brunswick, 1898 and forwards.

President C. K. Adams, "The Establishment of a School or College of Commerce in the University of Wisconsin." 1900. Bulletin of the University, No. 34.

Congrès International de l'enseignement, Technique, Commercial et Industriel, tenu à Paris. Rapports, Discussions, Travaux et Résolutions, etc. Paris, 1900.

Sir Joshua Fitch, Lecture on "School Work in relation to Business." *Journal of the Society of Arts*, May 10th, 1901.

P. E. J. Hemelryk, "Commercial Education in our Colleges" (in *Tablet*). Reprinted by Rockcliff Bros., Liverpool.

CHAPTER II

STUDY AND TEACHING OF LANGUAGES AND LITERATURE

"These studies nourish youth, entertain old age, gild prosperity, furnish a resource and comfort in adversity, delight us at home and do not hinder us abroad, are our companions during the night, when we are travelling, or are sojourning in the country."—CICERO.

MUCH has been heard of recent years about the supreme importance of foreign languages in modern education, and in addition to emphasising the need of previous good drill in the mother tongue, the object of the present section of our subject will be to indicate a way to the realisation of the wish of reformers to see language instruction recast in all our schools.

The words of the famous scholarly Roman orator that appear above, which in his time could but express the sentiments of the cultured few, accurately set forth at the present day a result of what he himself in the same speech called "liberal studies," which every advocate of "Commercial Education" on healthy lines will foster. A modern writer, in a novel read by every German, from the Imperial family to households the education of which has ended with the elementary school, has said that "Poetry everywhere dominates the work of the children of men"; in *Debit and Credit*, as Professor Franz Lange well said, Freytag has "glorified the profession of Merchant, and exhibited the German at his best, at his work." But we are told by some that Utilitarian principles are hurtful to education; and such seek in modern language instruction to discredit attempts to

teach an even living language colloquially. The writer fully endorses a resolution of the Modern Language Association at their last annual meeting: "Every effort shall be made to maintain the scholarly and literary side of modern language teaching besides the practical." At the same time, as M. Michel Bréal, of the Sorbonne, tells us, it is through knowledge of the language as spoken that we can rightly study it on its literary side. The learned professor asks, "How is your pupil to grasp the force of the language of Goethe's and Schiller's plays, who is not familiar with the various shades of meaning of words like *ja, doch, nur?*" M. Delbos has said that he believes very few English readers of French novels thoroughly understand a single page of the original of any such books.

First as to the mother tongue, which for most readers will be ENGLISH. It used to be thought that modern English could be sufficiently taught to English pupils of grammar schools through Greek and Latin; just as contemporaries of the writer at a German University who came from "Gymnasiums" informed him that they had never learnt German grammar. This absurdity, indeed, is not yet quite dead in even the United States. According to a Report of Vice-Consul Erskine upon Education in Chicago, of September, 1900, out of a hundred and ninety-one candidates for matriculation at the North Western University, only twenty-six had passed in the English paper, although the majority of those who failed were "well up" in Greek and Latin; "they were practically ignorant of the rudiments of their own language." We presume that things have improved in the old country, since an English paper has been set in probably every scholarship examination at Oxford and Cambridge Colleges. In the seventies a banker remarked to the writer, who had charge of the instruction of his sons, that whenever the *Times* contained a letter from the headmaster of a certain Great School, his first thought on beginning to read it was, whether the letter would show any improvement in style and expression upon the last preceding performance of the same gentleman. No: the mother tongue claims special

attention all through the school career of our boys. That English has been so imperfectly taught is one of the causes of poor results in modern languages. It is strange that Germans, such as Schlegel in the eighteenth, and Grimm in the last century, should have discovered for us, the one the supremacy of Shakespeare as a world-poet, the other the singular effectiveness amongst modern languages of that of which Ruskin was a master.

Pupils, while still in the lower division, should make acquaintance with the Science of Language (Philology); their teacher should be familiar with Phonetics. For *reading* (after the stage of literary or general extracts in such manuals as those published by Blackie), pieces should be used in higher elementary schools as at present, in aid of such instruction as the pupils receive in Geography and History; whilst descriptive matter, as in the Frankfort series of reading-books (see Lit.), as well as newspaper extracts contained in reading-books specially devoted to such, and industrial or commercial Biography (chap. xii.), will find place in secondary schools; and in the last year or two such a book as Palgrave's *Political Economy Reading-book* may be used, as already suggested, in higher elementary schools, whilst Jevons's *Primer of Political Economy* and Blackie's *Newspaper Reading-books* are very suitable for the same purpose in secondary schools. The teacher should comment on any difficulty as it arises, and afterwards question the class on the subject-matter of the extracts read.

The same or quite similar materials should be used for lessons in *spelling*, in regard to which it has been the writer's practice to dictate to boys passages selected from those which they have already seen in reading lessons, using such books as Meiklejohn's spelling lists only for examination purposes. Every reading lesson itself of course affords opportunity for impressing on pupils the spelling of the more difficult words, the teacher using such a guide as Meiklejohn's *Side Lights*, which is suggestive of historical explanations.

As to *grammar*, no teacher can ever forget Mr. Herbert

Spencer's onslaught: "that intensely stupid custom, teaching grammar to children." Who does not agree with him more or less, so far as regards the old dogmatic method of using ready-made rules? There can be no difference of opinion as to the plan to be adopted when the subject is first introduced. The inductive or "Heuristic" method, according to which the pupil arrives at an ultimate generalisation for himself by comparison of selected examples (such as those collated ready to hand in Sonnenschein's Series of Language Manuals), has superseded that instruction in "grammar" of which the famous English philosopher speaks. The teacher will keep right who learns from Dr. Edwin Abbott's writings how to handle English grammar in class. This scholar, in a communication to the present writer, pointed out "the mistake committed in making it a mere matter of book-work instead of giving oral instruction in the analysis of the language of every-day life." We only add here that as Mr. O. F. Emerson has said, "historical English grammar is essential to explanation of present usage": resort must be had to that when estimating the claims of rival forms of expression in colloquial English. It is a great mistake not to take into account the spoken language or to lamely acquiesce in present usage of educated persons as final; for when attempting to criticise that which strikes us as illogical in some foreign tongue, we may receive a rude awakening from one to whom it is a native, who can point out how we in ours sin yet more. The teacher of English, moreover, should aid his colleagues entrusted with instruction of the same pupils in foreign languages by pointing out analogies known to himself between the phenomena of the mother and those of the strange tongues.

As next in order let us glance at the study of native *literature*, that of which the country may justly be proud, which all her sons should cherish. How deftly have many of our people combined the "daily round, the common task" with lofty and fruitful thought, so as to exact the admiration, grudging or not, of the students in other lands. The heritage must be carried on in ever-increasing volume. Here is a

grave responsibility for those who advocate "Commercial Education," but we have no apprehension as to those rising to the height of it who are adherents of the third school spoken of above. An annually increasing number of university men join the ranks of business enterprise, who carry with them the traditions of their early training and are mindful of them in arrangements made for the education of their sons. In this department, most happily, one meets with that which largely offers the same advantages as such portions of the old classical training bestowed upon us in the past which have now, regretfully, to be replaced by the Newer Learning. Mr. P. A. Barnett can triumphantly say that of all subjects English Literature "cannot be made a *technical* study"; instruction in it must be "the same in each stage for all pupils whatever their destination. . . . We use it to cultivate mental habits and tastes." Let us then preserve it as much as may be from the dominating influence of examinations and *cram*. The works selected "should be studied largely at home and discussed at school" (Scotch Regns.). It is indeed refreshing to find that the writer whom we have just named, on a subject which he has made his own, is able to recommend for pupils at the age at which we regard boys as passing from the lower to the upper division of a second-grade school, a course of reading with such a happy combination as Shakespeare's *Tempest*, Milton's shorter poems, *The Pilgrim's Progress*, *Robinson Crusoe*, Addison's and Pope's Essays, *Esmond*, Tennyson's *Idylls*, and *Lorna Doone*. When we commend to our boys' attention certain books which they would probably select if left to their own fancy, they will take more kindly to others associated with these in our syllabuses. The manual of Literature edited by Morrell, in Meiklejohn's series, which contains excellent exercises for home-work, the writer has found much more useful than Brooke's *Primer*.

The composition of the school library will of course follow the fairly general aim of the school itself; but when the college is reached we should look perforce for less of *belles letters*, and more of "economic," "commercial" lore.

Précis-writing and *composition* may be considered together; that is, the analytic with the synthetic process. Composition has been taken first by the writer in his manual on these topics; for some general hints upon it, see the introductory chapter there. He is strongly of opinion that school-work should exclude commercial correspondence (see chap. xi.), as to which Signor Casale did not exaggerate at the Venice Congress when he said that our people "have adopted a peculiar phraseology in their commercial correspondence, knowledge of which requires a particular study."* Moreover, it can be profitably studied only in connection with the study of the run of transactions concerned. At school, then, a student should do no more than write essays, which in the last two years should extend to subjects of commercial interest within the range of the pupil's regular studies. The writer has indicated in the special manual a way of instructing boys in the preparation of a précis, and will not pursue the matter further here. The process is required in Government Offices and Chambers of Commerce (see Appendix).

Mr. R. M. Moir (Mathieson and Co.), writing in 1889, said: "It has been my lot for many years frequently to select applicants for situations from letters sent in reply to advertisements. . . . The lack of sense and ruggedness of expression pervading such letters have revealed a serious defect in school-work. . . . Many a young man otherwise well qualified for a situation has lost one again and again from no other cause than that his letter of application was badly expressed."

In the last year of a boy's school-life some knowledge of elementary LOGIC should be secured to him (see remarks on this point in Mill's *Autobiography*); as the only practice he otherwise will have in ratiocination will be derived from Euclid (chap. iii.), and that, deduction alone. Many boys never manage to feel at home in Euclid, whilst only few proceed to a University or University College where they could be systematically trained in Logic. If they are to study Economics (chap. iv. etc.) intelligently, scientifically, they

* Report, p. 486.

must have some concurrent if not previous training of this kind, and should be ripe for it by the time they are fifteen years of age. Such an excellent manual as Whately's *Lessons in Reasoning*, or, better still, Jevons's *Primer*, covers the ground of what a schoolboy might reasonably be expected to know. Here they will learn the importance of precision in the terms which they employ. We fear that very few indeed in after life take up the study for themselves seriously; and in this day of newspaper reading, superficial thinking tends to be widespread, to the detriment of exactitude, to say nothing of originality. Application would be given to what is so learnt in the essay-writing of such pupils. Some practice should also be given to boys in Elocution beyond that which they have in view of a breaking-up entertainment: this will aid in the extinction of slovenly ways of speaking. Recitation, therefore, should be cultivated.

The merest tyro knows that satisfactory HANDWRITING is most essential for business work; and yet Mr. Moir has said that in his experience "not five young men out of a hundred are able on leaving school to write a decent hand." The so-called Civil Service style seems to have established itself in elementary schools. From conversations which the writer has had with many business men on this subject he has gathered that most favour a young man cultivating a style of his own: they do not like a featureless style. Other things being equal, a slight slope (Mr. Morris suggests, at an angle of 10°) would still generally be preferred. The celebrated dictum of Lord Palmerston should ever be borne in mind, as it has been at least in Government Offices: "Let your writing be neat and legible; then never mind whether it is ornamental or not." Bank clerks have informed the writer that looped letters are preferred in their establishments with a longer upward stroke than that given to unlooped (*e.g.* ). Much use must be made of the blackboard. We would suggest also that teachers keep by them, for pupils' reference, original samples of different handwriting, from which boys could severally make up a style of their own. Finally, boys whose

running hand is well formed should be taught to write rapidly.*

No start should be made at TYPEWRITING in a higher elementary school until this stage is reached; as constant use of the machine entails less practice in longhand, and this should not be neglected. For pupils of secondary schools it will be time enough to learn manipulation of a machine immediately after finally leaving such a school. A "Blickenderfer" (obtained for £7 10s.) serves sufficiently at first, and afterwards conveniently for private use. The chief advantages of typewriting are, of course, the speed gained, economy of space, and universal legibility.

SHORTHAND, being now in universal use, needs but little said here about it, and that chiefly with reference to the time when the theory should be learnt. Our settled view is that the most favourable period for pupils of any description of school with this subject in its syllabus is between the ages of twelve and fourteen, within which time they can obtain Pitman's Theory Certificate, as experience in a Scottish school has shown; then during all the period of their study in the upper school of the intermediate type they can be acquiring speed up to the standard of minimum efficiency (one hundred words a minute), by expenditure of little time—very much by taking notes from lessons and lectures—and giving all their strength to the subjects which are less mechanical; whilst boys who stay at a higher elementary school until fifteen or so can devote more time in the one year to that which for them is of relatively greater importance. So useful is this art to most people that it should be treated as, equally with longhand, a part of everyone's general, rather than of "technical," education, and therefore not as an optional subject. It is almost as great a mistake to postpone attention to it until one leaves school, when the labour of mastering the theory is more irksome, and you are apt to shirk the practice which is so essential to efficiency. Shorthand work

* See p. 31 of Technical Board's Report, evidence of Messrs. Baker and Capel; and also Barnett, p. 58.

is the best possible handmaid of early study of modern languages, as it is from first to last a question of phonetics; and in the hands of a really good intelligent teacher has much more educational value than is often supposed by persons not expert in it. Boys should be made to re-write all slovenly work, and must always do as much reading as writing, otherwise they will not readily read their own notes afterwards. The writer was accustomed when teaching shorthand to practise boys, who had obtained the Theory Certificate, in French dictation taken down phonographically.

Which modern language should be taken first? There are, according to usage, only two between which as school subjects the choice must be made,—French and German. Notwithstanding the attractiveness of French literature, its probably greater claim from a utilitarian point of view, and the writer's personal interest in the sale of some manuals, his suffrage is given on educational grounds for German. The pronunciation of French is considerably harder, and this language is much more idiomatic; whilst any countervailing disadvantage of German as a synthetic language can be overcome by a teacher who knows his business through postponement of the noun inflections to a large extent. The pupil will, however, be prepared for them after a year's drill in Latin. The verb being the all-important word, what can supporters of the alleged prior claims of French say in its defence when we face that difficulty? The German verb, on the other hand, is easy for English people. German has suffered a sort of boycotting in English schools as the antagonist of Greek; and headmasters have for the most part been ignorant of it themselves. In comparison with German, on commercial grounds, French is simply nowhere. We therefore entirely support the views of Mr. Dudley Matthews and Mr. Charles Cookson, expressed respectively at the last annual conference of headmasters, and in a letter to the *Times*.*

The age at which these two languages should successively be commenced we would put at ten and eleven. Thus the

* Issue of January 7th, 1901.

mother tongue will have sole attention during the first decade of our boy's life.

What shall be the aims of modern language instruction in our schools? The Scotch Education Department answers this by its recommendation issued within the last two or three years: "Whatever method be pursued in the beginning, the result at the end of the course should be that the pupils are able to read simple narrative in the language at sight, and to understand and reproduce, both orally and in writing, the substance of a conversation on everyday topics, or a simple description." It is reported that an inspector on visiting a secondary school since this caution came from Whitehall, bluntly told a Swiss delinquent, before his class, that the Government representative could have taught them more in a fortnight than he had done in six months. So far, our southern teachers are exempt from such a discipline; but one earnestly hopes that soon it may be said that the days of the inefficient English or foreign, in our land, are numbered. How terrible the indictment in the Report of the London Chamber which speaks of "that miserable mockery, the teaching of foreign languages at the ordinary public schools."

The various methods which have at different times been used are generically reducible to (1) exclusively practical, (2) exclusively theoretical, (3) jointly theoretical and practical. The way in which the writer learnt his school French and German in the sixties was the conventional application of the last of these, the introduction of which is credited to Dr. Ahn. It has been thus described by Schmitz, of Greifswald, in his *Methodik:* "The *elementary course* begins with sentences, the simplest and easiest possible, in which the forms one by one unfold themselves for practice. It introduces progressively the most important portions of Grammar and Vocabulary. Afterwards the pupil is led on to connected passages; to *systematic grammar*, as concise and synoptical as possible, with an easy author. The most general rules of pronunciation and indispensable parts of conjugation are rapidly surveyed and inculcated; concurrently with which, from the first lesson

of this second stage, a short section is read and translated, special attention being given to what has already been learnt in the grammar, but everything else is assumed provisionally. Each time that which preceded is recapitulated in whole or in part" (pp. 163 f.). This scheme is seen at its best in books like the late Dr. Ehrlich's *French Method*, the author of which introduced slight modifications of his own.

Such continued to be very much the course of language instruction received in English schools down to the first appearance of Sonnenschein's series of reading books, representing the *neuere Richtung* expounded by Vietor (1882) and others on the Continent, according to which the Reader is made the Alpha and Omega of instruction. This *a posteriori* method gains yearly more acceptance everywhere. The pupil takes his own part in evolving the grammatical rule. Pronunciation is taught systematically from the first, and conversation is established by the aid of the materials supplied by the extract. It will be observed, however, that the eye is not required to abdicate its traditional supremacy over the ear.

The method used by the *Berlitz schools* assigns complete dominance to the ear, with the idea of producing, by the aid of an object-lesson conducted entirely in the foreign tongue from the very beginning of the course, that which is called the "natural" process; whilst the *Gouin series* method adopts the less ambitious, intermediate plan of using the mother tongue at first alternately with the foreign, but as sparingly as possible, gestures taking the place of objects as facilitating suppression of thought in the mother tongue. A bystander would suppose that *oui* (*ja*) and *non* (*nein*) were not in the pupils' vocabulary at all. Each of a series of connected sentences contains a verbal form in the same tense and person as the rest: this is the first word introduced in the foreign language, next the noun, and then the connecting words. Subjective phrases are worked in, which the pupils use to one another; at the end the whole is written by the teacher on the blackboard, copied by the pupils, and learnt

by heart as homework for repetition at the next lesson. The class should be limited to twelve or fourteen. A copy of the piece is supplied to each pupil at the end of the lesson, when the eye for the first time reinforces the ear. The present writer has taken teachers' courses during ten months at the Gouin School in Liverpool, in particular Spanish and Italian, of which he knew nothing, and in French and German under trained teachers of this method—M. Thouaille, who has obtained excellent results from classes in a Scottish public school, and Herr Kaiser—who, with such a brilliant instructor as M. Latour at Edinburgh, are giving, by the results obtained, demonstrative refutation of criticisms by Mr. Storr of Gouin's own book. We have arrived at the same conviction as Dr. Dunn, one of H.M.'s Inspectors in Scotland, who has availed himself of M. Latour's instruction during three years, and has written: "This is the method by which the mother tongue is acquired, and every other method is artificial and unsatisfactory. Grammar is much more thoroughly acquired, because the phenomena are discovered and used in the formation of every phrase, until the rules, instead of being so much mental lumber accumulated in the memory and laboriously extricated, come to be subjectively realised and instinctively applied."* We are of opinion that teachers must look to modification of the reading-book method by infusion of Gouin ideas for really satisfactory results from the former. Miss Brebner thinks that pupils taught singly may of course make more rapid progress than in class. One who took daily instruction for nine months at the Liverpool school became efficient for the work of a traveller, although he knew no German grammar when he began, but was taken through Otto's *Manual* during that period. Another, equally ignorant of grammar, with fifteen months' instruction twice a week, is now clerk with a German firm in Liverpool, and able to type German letters on the typewriter and translate American market reports into German. Miss Brebner thinks that during her tour of inspection in Germany she detected the

* Edinburgh Prospectus, p. 65.

influence of the Series Method over the form taken by instruction observed by her there. Dr. Kron, whose *French Life* and *German Life* have been introduced into this country by Professor Rippman, was one of a party of teachers who took ten consecutive lessons at the Gouin School in London, and were all converted;* he himself is now the spokesman of the method in Germany (see the "Literature"). Mr. Storr is an estimable teacher, whose acquaintance with the method seems to be confined to that which he witnessed at a single lesson; precisely the measure of the writer's acquaintance, altogether inadequate for expression of a strong opinion, of the Berlitz method. We may add that while the one seems ineffective for the subjective language, the other makes use of illustration for it. For a sample of commercial series, see Appendix. Whatever grain of truth there may be in his contention—we believe that it could apply solely to a vocabulary acquired for literary composition†—that "juxtaposition of time and place" will not match "natural affinities of language" (an artificial antithesis between psychological and philological considerations), his theory breaks down absolutely in respect of the acquisition of a commercial vocabulary. No one who keeps in touch with the Series Method when rightly used, as long as the writer has done, can quiescently pass by such illusive criticism that "it is a mere exercise of memory . . . there is no room for discrimination." A teacher who has access to Cart's Report on a Swedish school (it is referred to by Passy) can weigh Mr. Storr's stricture in the light of what is there recorded. The impression of Professor Rippman (who prefers use of pictures, such as Hötzel's), that visualisation is not found to answer in the case of children, seems to record an experience conflicting with that obtained by M. Thouaille in Scotland, where children have avowedly liked it, and the teacher, a capable disciplinarian, has kept them well in hand. A class of boys should be within ten in number, and selected. Ineffective discipline will quickly render the method useless. The

* KRON, p. 128. † Cp. WAITZ, p. 400.

objection which some raise, that the intellectual faculty is not brought into play, ignores the advantage derived from the pupils thinking in French instead of in English. It may apply to the Berlitz, but not to the Gouin method. Dr. Sweet offers a piece of valuable advice, that the pupil should be led to the acquisition of "a perfect command of a *limited* number of *idioms*."

The teacher should be acquainted with the elements of Phonetics. He cannot dispense with the analytic, imitative methods now practised with good results on the Continent. Before dictating he should shortly state, in the language being taught, what the subject is, and elicit from one of the class a repetition of this in English. At the end of the dictation the whole passage should be written on the blackboard, and each pupil required to correct his work, and separately note defects for the teacher's examination and comment. At first the passages selected should be such as the pupils have already seen.

Recitation should not be confined to poetry, but should extend to colloquial prose. For *reading*, the Jesuits selected dramatic pieces, and modern plays have the distinct advantage that they aid the learning of the conversational language. In other respects, equal attention should be given to the classical and to the contemporary language of newspapers. In construing, words closely resembling each other in the two languages should be avoided; they frequently have a different meaning in the one from that borne in the other.

What Mr. H. Spencer has said about English grammar Locke long ago laid down for that of any foreign language: Trouble the child as little as possible with it. M. Passy neatly says, "La grammaire est inutile (ou nuisible) pour *apprendre*, mais elle est utile pour *retenir*" (p. 25). Those points should first be brought out in which the foreign differs from the mother tongue. A difficulty has presented itself of late in French. Our neighbours' Education Department, unable to summon to its aid the shades of Voltaire for the settlement once for all of some knotty points of syntax, has

directed that in certain cases named violation of the rules by examinees shall not count against them. The Scotch Education Department has issued a precept, the effect of which, as understood by Frenchmen teaching in the north, is that the rules shall still be taught, but the pupils told that they need not be applied. It would be more sensible not to teach the rules at all, and if a pupil appeal to the teacher for him to reply, "*Do as you like.*" The Modern Language Association has discreetly avoided committing itself to an expression of opinion on the matter.

The blackboard must be largely used for work done in school, and the manual kept for unaided home work. There must, of course, be written exercises, for we must not forget the words of Bacon, "Writing makes an *exact* man," or those of Horace—

> "Segnius irritant animos demissa per aures
> Quam quae sunt oculis subjecta fidelibus."

Model sentences, however, should always precede.

As soon as can be, free composition should be practised.

It remains that we say something about the commercial side of language instruction. Already a protest has been offered to any idea of school pupils "picking up" haphazard what a clerical headmaster spoke of at the London Conference of 1898 as "the eccentricities of commercial phraseology," which this gentleman, in the usual fashion, assumed would be soon accomplished. Such an aspirant for success in this line had better be warned to change his tactics: it is not so that his rivals from abroad go to work. There is need of systematic vocabularies illustrated by short dialogues and classified extracts for reading and translation. Such a manual the present writer hopes shortly to provide for German. Any attempt to teach formal correspondence, unless as in association with lessons in Commercial Science, he would entirely reprobate (cp. chap. xi.). With a museum of products something can be done by object lessons, as recommended by Dr. Ziehen in the *Journal* of the German Association for July, 1900; and use should be made of such

a reading-book as those edited by him and his co-workers, which are less technical than those of Preisinger, Bally, and the present writer. The plan of supplying the pupil with German and French equivalents for our own terms when these are explained* was that adopted in footnotes to the *Introduction to Commercial Science*, of which a second edition appeared in 1900.

Spanish may have to be provided for in the schools of South Lancashire and South Wales in view of the demand for it at Liverpool and Cardiff.

Some pupils on leaving school will have occasion to study other languages, such as Portuguese, Italian, Russian, if not Arabic or Chinese, for which Eastern tongues the late Professor Max Müller was solicitous to make provision at the Imperial Institute. Others will endeavour to improve their colloquial command of German or French by residence abroad, sooner or later. "Dost thou not learn foreign languages best in the countries where they are at home, where only these and no other strike thine ear?"† Others, again, may proceed to a commercial college, when any such is established, or to one of the Universities; but as things are, little encouragement is yet given by these to modern language study. The matter presented itself to the writer in a practical way thirty years ago, when matriculating at Oriel College, where the venerable Provost—whose testimonial secured Arnold's appointment at Rugby, and with the support of whom the Science School came into existence at Oxford—expressed his regret that for one who had been studying Greek for only one year immediately preceding, but had for four years been familiar with German, no provision existed for the substitution of greater acquaintance with the modern for meagre knowledge of the ancient language. Even by this time no such regulation is available. The Modern Language Association has recently passed a resolution with the view of approaching the University authorities to obtain the concession that a modern

* Venice Report, p. 212.

† *Wilhelm Meister*, bk. vi.

language be accepted as substitute for one of the classical languages in entrance examinations. One Cambridge college has gone so far as to award a Fellowship to an Honoursman in the Modern Languages Tripos; but Oxford, as usual, lags behind.

Finally, should teachers of these languages in schools be foreigners, or of British birth? The tendency now is to appoint our own countrymen who have resided for some time abroad. Foreigners undoubtedly are inclined not to speak their language whilst engaged in acquiring a good command themselves of colloquial English. Mr. Colbeck in his book has said that the best plan in a large school where this can be done is to have a Briton for beginners and a foreigner for advanced pupils. At foreign commercial schools it has been usual to employ an Englishman or American for our language, a German for German, etc.; but the Leipzig Chamber of Commerce has recently appointed as English teacher at its school a German, who has been at Harvard University, and this notwithstanding an imperial rescript in the opposite direction. We know not if Anglophobia, so rampant there, has aught to do with this, but anyhow it is a new departure.

Can and should LATIN be retained to any extent in secondary schools such as those we have in view with pupils intended for business? If the writer's opinion as to this is worth anything at all, he would settle the question in no half-hearted way in favour of a language which, beyond all doubt, as Sir F. Pollock wrote to the *Times*,* is indispensable to a liberal education. Those who at school learnt English (independently), Latin, French, and German (concurrently with the subjects dealt with in chapter iii.), under equally good instruction, cannot understand what sound excuse there can be for giving up both classical languages. We have read probably all that has been urged against the retention of Latin without the shock of any misgiving as to its claims. That so few boys attain to even a semi-scholarly acquaintance

* Issue of January 1st, 1901.

with Latin is far less due to their lack of aptitude for it than the wrong ways in which the instruction has been given. There are, indeed, few subjects of which the same cannot be said; we need only name Euclid and Chemistry, Geography and Drawing, besides English Grammar and French Conversation. Surely our boys may derive a benefit that will go with them throughout life by three years' instruction in this language from the age of twelve to fifteen, whether they continue to study it for a university course during four more years at school or not. That much of what the boys so learn will be forgotten is an objection that affects several school subjects: what is really important is, that the influence on the mind should be permanent; and here Latin can hold its own. The "utilitarian" argument does not tell all in one direction; any boy who learns Latin may have in after years to acquire such a language as Spanish, which will come to him much more quickly for acquaintance with that from which it is largely derived. Indeed, as Mr. Eve has lately pointed out, the modern study of each of the classical languages had a utilitarian source. The recognition of Latin in the general section of a modern school might have remained unquestioned but for the persistent maintenance of the English traditional way of teaching the grammar, in spite of many protests since the days of Comenius and Locke. Fruitful results might ever be obtained from the general adoption of the method represented by Sonnenschein's series of Readers. A boy within three years can easily be taken through all of these, and will obtain an insight into the structure of language that will be "useful" to him throughout life. Not only so, but we are sure that something further can be done for him than this: place could be found for a judicious selection from the *Æneid*, Cicero (Letters, *De Amicitia*, an Oration), Pliny (Letters with pictures of Roman life), besides Cæsar's account of Britain. Re-translation, recommended by Ascham, might take the place altogether of composition. Finally, we may refer to some Examination Questions bearing on the subjects of this chapter in an Appendix.

LITERATURE

1. GENERAL.

For Teachers:—

Schmitz, *Methodik des Unterrichts in den neueren Sprachen.*
Waitz, *Allgemeine Pädagogik: Die fremden Sprachen.* Brunswick.
Colbeck, *On Teaching Modern Languages in Theory and Practice.*
Widgery, *The Teaching of Modern Languages in Schools.*
Vietor, *Der Sprachunterricht muss umkehren.*
,, *Elements of Phonetics.* Ed. by Rippmann.
Soames, *Introduction to Phonetics.* Ed. by Vietor.
Bréal, *The Teaching of Modern Foreign Languages.*
,, *De l'Enseignement des langues vivantes.*
Strong, *Report* (to Scotch Education Department) *on the Teaching of Foreign Languages in Belgium.*
F. Spencer, *Aims and Practice of Teaching*, chap. iii.
Storr, "The Teaching of Modern Languages" (in Barnett's *Teaching and Organisation*, pp. 261 ff.).
Passy, *De la méthode directe de l'enseignement des langues vivantes.*
Heath, *Methods of Teaching Modern Languages.* Boston.
Brebner, *Report on the Teaching of Languages on the Continent.*
Sweet, *Practical Study of Languages.*
Kron, *Die Methode Gouin.* Marburg.
Rippmann, *Hints on teaching French.*
,, *Hints on teaching German.*
Latour, *Prospectus of the Edinburgh Training College of Modern Languages.* 3, Coates Crescent.

2. ENGLISH.

(*a*) For Pupils:—

Nesfield, *Manual of English Grammar and Composition.*
Moulton, *The Modern Reader's Bible.* Presented in literary form; several small vols.
Abbott, *How to Write Clearly.*
Gesenius, *Lehrbuch der Englische Sprache.* 2 Teile. Halle.
Whitfield, *Introduction, &c. Lesson V.*
,, *Précis Writing*, etc.
Fischer and Schmidt, *Englisches Lesebuch für Realschulen.* All English. Frankfort.

(*b*) For Self-taught Students:—

Gow, *A Method of English*, with Key.
Meiklejohn, *The Art of Writing English.*
Thum, *Neue Englische Grammatik für den Kaufmann.*
Koch, *Praktisches Englisch.* 2 Teile. Berlin.

(*c*) For Teachers :—

Taylor, *Lesson Notes* (Nos. 85-91).
Abbot, *On the Teaching of English.*
Morley (Right Hon. J.), *The Study of Literature.*
Way, Chapter iv. of Spencer's *Aims and Practice of Teaching.*
Burrell, "Reading and Speaking" (in Barnett's *Teaching and Organisation*, pp. 45 ff.).
Barnett, *Teaching and Organisation*, pp. 136 ff.

3. LOGIC.

Jevons, *A Primer of Logic.*

4. LONGHAND.

Morris, in Barnett's *Teaching and Organisation*, pp. 56 ff.

5. SHORTHAND.

(*a*) For Pupils :—

Sloan-Duployan, *Shorthand Instructor; Sténographie Duployé.*
Richter, *The G.-R. Phonography.* Elberfeld : Fassbende.
Herget-Richter, *Lehrbuch der Kaufmännischen Stenographie nach Gabelsberger's System.* Zwickau.
Pitman's Shorthand Instructor.
Fieldhouse, *Student's Phonographic Shorthand Exercises.*

(*b*) For Teachers :—

Pitman's Handbook for Teachers.

6. TYPEWRITING.

Remington Typewriter Manual.
Borchert, *Lehrbuch für das Schreiben mit der Schreibmaschine.* Berlin.

7. GERMAN.

(*a*) For Pupils :—

Rippmann, *First German Book.*
Harcourt, *German for Beginners.*
Siepmann, *Public School German Grammar.*
Meissner, *German Prose Composition.*
Wolff and Ziehen, *Deutsches Lesebuch für Realschulen.* Frankfurt-a.-M.

(*b*) For Self-taught Students :—

Weisse, *Complete Practical Grammar of the German Language.*
Fritsch, *German Grammar*, with Exercises and Key. Frankfurt-a.-M.
Bossert and Beck, *Les mots allemands & Exercices.* Hachette.
Eitzen, *Commercial Dictionary* (English-German).
,, *Wörterbuch der Handelssprache* (German-English). 2 vols.
Preisinger, *German Commercial Reader.*
Kron, *German Daily Life.*
Bally, *German Commercial Reader.* Methuen.
Whitfield and Kaiser, *Systematic English-German Commercial Vocabularies.* In preparation.

8. FRENCH.

(*a*) For Pupils :—

Beuzemaker, *First French Book.*
,, *Second French Book.*
Mackay and Curtis, *First French Book.*
Duhamel, *First Steps in French Reading and Composition.*
Meadmore, *Les Idiotismes, etc., & Exercices.* Hachette.
Wolff and Ziehen, *Französisches Lesebuch für Realschulen.* Frankfurt-a.-M.

(*b*) For Self-taught Students :—

Beljame and Bossert, *Common French Words*, with Soult's *Exercices.* Hachette.
'Bétis and Swan, *The Facts of Life.* French series.
Whitfield, *French Grammar*, introductory to Mercantile Correspondence.
Whitfield, *Concise French Commercial Reader.*
,, *French Commercial Dialogues.*
Steenweghen, *Dialogues Commerciaux français et anglais.* Lierre and Antwerp.
Bally, *French Commercial Reader.* Methuen.

9. SPANISH.

(*a*) For Pupils :—

Delbos, *Commercial Spanish.*
Gräfenberg, *Spanisches Lesebuch für Realschulen.* Frankfurt-a.-M.

(*b*) For Self-taught Students :—

Oliver and Hartmann, *Spanische Grammatik für Kaufleute.*
Baro and Lanquine, *Les mots espagnols & Exercices.* Hachette.
Montejase, *Conversacion comercial española.* 1 curso, para los principientes ; 2 curso, para los expertos. Berlin.

10. ITALIAN.

(*a*) For Pupils :—

Alge, *Lezioni d'Italiano.* St. Gallen.
Forte, *Italienisches Lesebuch für Realschulen.* Frankfurt-a.-M.

(*b*) For Self-taught Students :—

Locella, *Italienische Grammatik für Kaufleute.* Leipzig.
Guichard, *Les mots italiens.* Hachette.

11. PORTUGUESE.

For Self-taught Students :—

Booch-Arkossy, *Portugesische Sprache.* Hartleben's series. Vienna.

12. RUSSIAN.

For Self-taught Students :—

Manassevitch, *Russische Sprache.* Hartleben's series.
Hauff, *Russische Handelskorrespondenz.* Hartleben's series.

CHAPTER III

STUDY AND TEACHING OF MATHEMATICS, NATURAL SCIENCE, AND DRAWING

"A just view of the world and of life is possible to man only as based upon knowledge of his relation to Nature around him."—WAITZ.

THE word "science" has hitherto seldom been used in these pages. As correctly employed, it means "general knowledge expressed as precisely as possible," whether with precision as in mathematical, or with a certain elasticity as in commercial, science. But, however regarded, it is "an orderly arrangement of knowledge." So Professor Sully in his *Teacher's Handbook of Psychology*, who speaks of the teaching of science as "the great agency for strengthening and developing of the reasoning powers."

In the estimation of great thinkers of every age, no department of early education vies with MATHEMATICS in this particular: it is the model for all others, as that which, besides inculcating habits of accurate thought and expression, fosters in the highest degree the scientific spirit by keeping before one the higher interests of life. Work at pure mathematics aids all other studies by showing what should be their aim, and supplies a firm basis to pupils' intellectual interest, which Lord Goschen, in an academical address a few years ago, said has been so deplorably wanting in most boys on their leaving great schools. It is above all things to be desired that the establishment of commercial divisions will be attended with healthier results. As an American writer has said, it is at the same time most fortunate that work at mathematics can be turned to so much account in after life, far more than

parents generally realise. Nevertheless, their chief merit is on the educational side. As Lord Bacon wrote of pure mathematics: "If the wit be too dull, they sharpen it; if too wandering, they fix it; if too inherent in the sense, they abstract it.*

We commence, of course, with **Arithmetic** as an art, going on to speak of it as a science under the name of **Algebra.** It is the leading factor of commercial education, knowledge of its operations being needed by everyone in the economic world. "Numbers," wrote Steele, in the time of Queen Anne, "are so much the measure of everything that is valuable, that it is not possible to demonstrate the success of any action, or the prudence of any undertaking without them." † Moreover, let it at once be said, that this is of all school subjects the one which business people consider badly taught.

Whatever view be taken of the age at which shorthand should be commenced, there can now be little difference of opinion as to the absurdity of postponing approximations in arithmetic to the last years of pupils' school-work. Rapidity of computation must come in with the practice of "mental arithmetic," which many teachers still neglect. Let short methods be taught from the first treatment of multiplication and division. Decimals should be taken early; and here in reduction, as Dr. Wormell points out, it is better to carry the process upwards than downwards: "there is an advantage in changing units of a lower name (as pence) for equivalent units of a high name (as pounds)." The difficulty that besets "mental" work in this country comes, of course, from the complex system of weights and measures, which the Government still allows to be saddled on teachers, to the natural wonderment of foreign observers and to the inconvenience of all engaged in the foreign trade of the country, to the extent of two-thirds thereof; so that teachers and such traders in the United States and Great Britain alike are to a man in favour of legislative, effective adoption of the

* *Advancement of Learning*, ii. 8, 2.

† *Spectator*, No. 174.

Metric System and Decimal moneys; and America only awaits the lead of England in respect of the former. Improved commercial instruction will doubtless definitely secure this result without much further agitation on the part of the Decimal Association, the National Union of Teachers, and Chambers of Commerce.

Take a common case like the following, which any business man can appreciate: 57 tons 8 cwt. 2 qrs. 10 lbs. at £7 14*s.* 9*d.* per ton. This worked out as it stands involves twenty-one operations; but if it be expressed decimally, as tons 57·429 at £7·38, will need only six operations.

The Scotch Education Department lays down that "a thorough knowledge of decimals should be acquired, based upon the actual calculations required in the experimental course in science (see below)."

Long before pupils reach commercial arithmetic so called, ideas of *algebra* should be introduced into arithmetical work. The Scotch regulations say that it "should at the outset be treated as an extension and generalisation of arithmetic." We agree with an American writer, Professor Safford, that a good deal of algebra should be done by students before they enter upon a commercial course; as far as logarithms, or, at any rate, progressions. In reference to the teaching of algebra, it seems only necessary to point out the importance of the student becoming early accustomed to the separation of algebraical expressions into factors with a view to the determination of the H.C.F. and L.C.M. of two or more expressions, and of his also learning to translate at once the conditions of problems into algebraical forms for the solution of them by equations.

Some portions of arithmetic designated "commercial" in the manuals of Pendlebury and others will be taken as they come in the book, and such are now studied at probably all great schools; although the writer remembers how Oxford undergraduates coming from these had the greatest difficulty in understanding calculations in Stocks when preparing for Responsions; and as late as 1889 a Cambridge examination

Report stated that "some of the candidates did not appear to understand what is meant by debenture stock of a railway." Genuine business arithmetic will comprise in particular the calculation of percentage as applied to interest (specially for so many days, not years), bills, and goods. A reader of Dr. Wormell's essay should note his remarks as to the difference between thinking of an investment and of a gross return in estimating a percentage of gain. It is not merely examination papers that are at fault, but many text-books fail to make this clear. There should be an avoidance of vulgar fractions and of minute application of the Chain Rule; the instructor must conform to mercantile usage in the Exchange of money and produce, and even sacrifice strict accuracy (*e.g.* suppressing fractions under one-half). Amongst other things, calculation of bank interest for one day on the total of interest numbers representing different deposit balances, and the averaging of mercantile accounts may engage attention; as also comparison of weights and approximate prices based on a British unit (ton) with rates of exchange taken at par (cp. chap. xi.).

Mr. Sadler gives a too favourable account of the attainments of German *Realschüler*, with which should be compared the complaints made by the merchants (as at Hamburg) of their inefficiency when they first enter offices.

Algebra will be carried on to such topics as the calculation of annuities and of compound interest, needed in insurance and auditing of accounts of municipal corporations (chap. x.), although not used by merchants, with employment of logarithms, with which all pupils should be familiar.

Instruction in Geometry, known, in so far as regards the form which its demonstrative side habitually takes, in this country by the name of the Alexandrian compiler, *Euclid*, is called for scarcely more for educative purposes than by the requirements of everyday life which demand knowledge of the properties of the simplest objects and capacity to deal with them in measurement and in drawing for a vast number of employments. The ancient Greeks already discerned in

it that perspicuity and certainty which is the ideal of science; they regarded geometrical instruction as a sure means of instilling collectedness, attention, exact thought. Parts of Plato's exquisitely literary work can only be fully understood by a trained geometrician. Let us add that, besides training the imagination, it does service to several other studies, such as Physics and Geography, of which we shall have occasion to speak lower down.

The Scotch regulations direct that "the course of instruction in Euclid should be preceded or accompanied by exercises in practical geometry, and should where possible have a practical application—as *e.g.* to mensuration." The teacher would find aid in this direction in an excellent manual of constructive exercises by Mr. Kitchener, and in Bert's *Experimental Geometry*, which has had large circulation in French schools; good illustrations being given of practice in measurement of lines, areas, volumes, and curved surfaces. In connection with such work reference may be made to Professor Miall's recommendation with regard to physical measurements and use of the balance, as rightly forming part of instruction in Mathematics.

We suppose all who would adapt instruction to the requirements of life favour reform in British school geometry in the direction of teaching it as in France and Germany. As long as Euclid is retained, it will be above all things essential to enforce the necessity of pupils accustoming themselves as early as possible to the solution of easy problems, of which abundance may be found in Mackay's, Casey's, and Hall and Stevens's editions. Time may be saved by using some riders on the early books as introductory to the later ones. Thus 3:3 comes in well for 1:8 and 26; and the pupil may so acquaint himself with much of the Third book whilst working through the First and Second; and nearly all of the Fourth may be studied by him whilst engaged with the Third. There is a tendency, which perhaps should be restrained, to introduce notions of analytic into Euclidean geometry in teaching. Further suggestions would

be found in the works useful to teachers which are mentioned in the "Literature."

Trigonometry, or that portion of Mathematics which deals with the determination of the unknown parts of triangles, elucidates the inner connection between geometrical and arithmetical ideas, and furnishes the foundation for connecting these with mathematical Geography. It will meet industrial rather than commercial requirements; nevertheless, all pupils should, if possible, be taken through the elements of this branch, as also those of **Mensuration.** The Scotch regulations say, "Mensuration should at the outset be based on the experimental determination of surfaces and volumes which forms part of the course of experimental science, and may ultimately include exercises in surveying, involving simple applications of Trigonometry."

With regard to the study of further Mathematics, we need only note the value of the **Calculus** for those wishing to pursue quantitative methods of Economic study, and for such as make a speciality of *statistics* (see next chapter).

Mr. Sadler, in his reports on German *Realschule* education, we may repeat, has recorded a somewhat roseate estimate of the attainments of *Realschüler* in "advanced Arithmetic," in exchange for which many traders, as at Hamburg, would prefer aptitude for working simple commercial problems (cp. chap. i.). Not so very long ago such students, it was considered by enlightened teachers, were harassed with too much mathematical work, especially that set for *Hausarbeit.*

Coming to NATURAL SCIENCE, we may say that the time has happily gone by when study of Nature was regarded as a youthful diversion. Such masters as Mr. Herbert Spencer and Professor Huxley have established its claim to recognition in liberal education; whilst readers of such books as Seubert's *Warenkunde* may learn in a very practical way its importance for the manipulation of articles of commerce. The various methods of scientific analysis agree in this that they call forth observation; some direct observation, with or without the help of instruments (as in Zoology and Botany, Geology,

Geography); others, as requiring the aid of experiment (as in Chemistry and Physics).

Although much remains to be done before it can be said that these subjects are generally well taught in England, great changes have taken place since the writer received his school instruction in Chemistry in the sixties from a teacher so well qualified as Dr. Debus, not excelled by any other of those who proceeded on the old lines. It was indeed all accompanied by experiment, but that performed entirely by the lecturer. There was no laboratory work whatever in which the pupils themselves engaged; they were altogether passive.

The personal equipment of the teacher, rather than the array of apparatus at his command, is the *sine quâ non* in this connection: "he must have a real grip of his subject . . . that connected view of all the phenomena which is only got by general reasoning on deductive methods" (Miall). Simple apparatus, we have been recently told by eminent teachers, is all that is really required; whilst it is a distinct advantage for the student if he learn to construct his own.

The Incorporated Association of Headmasters has put forth a "Syllabus of an Elementary Course in Physics and Chemistry," recommended by its Science Committee, which, Professor Armstrong states, "is intended for those who desire to make the teaching of *scientific method* a part of the ordinary school course from the very earliest years"; he holds that "much may be done by children before they are able to read and write." The leading idea of the syllabus is that the pupil should *discover* for himself (Heuristic method). "A large portion of the time," it is said, "should be occupied by the pupils in performing actual measurements themselves; demonstrations are not excluded, but should occupy a secondary place; text-books, however, should be avoided as far as possible." In the part devoted to **Physics** one finds suggestions as to measurement of length, area, volume, mass, density, etc. In the Synopsis of Work in **Chemistry** we are told that the object of the instruction contemplated is to impart "not only information, but chiefly the knowledge of method. . . .

Candidates should be made familiar with most of the common substances occurring naturally; . . . with the various metals and other substances in common use; and in the case of many" should be able "to state what they are principally used for, and to give some account of their origin." Amongst other chief discoveries that will be made is the fact "that air is concerned in common changes"; watching water boil, and as it becomes hot the pupils will ask "How hot?" which will introduce the thermometer. Vegetable and animal food materials will undergo examination. It would appear that the system is subject to certain limitations. Thus, as Dr. R. W. Stewart points out, pupils should have some hints given them as to what to look for, and how to look for it; otherwise there must be some waste of time.

The extent of help required, we presume, depends on the attainments of the pupils at the time of commencing such studies. If they are already fourteen or fifteen years of age when they begin the *systematic* study of Science (as distinct from scientific method), they should be able, according to Professor Miall, "to work easy sums correctly, be ready with decimal arithmetic where not more than three or four significant figures are involved, as well as with the elements of arithmetical proportion and with the simpler kinds of approximation. It would be a great help if in addition the schoolboy understood the metrical system, knew something about the mensuration of plane and solid figures, and was practised in measuring with common scales, and in weighing with common balances."

Mechanics, concerned with the laws of movement and equilibrium, as well as the theory of force and machinery, and one of the most important branches of *Applied* Mathematics, is a subject instruction in the elements of which should be given to all; as essential, Léautey says, as Physics, Chemistry, Natural History. Professor Miall supposes that while pupils are studying Geometry and Mensuration, they are taught experimental Mechanics, and that when they first go to school they have "had many experiences, *i.e.* whether we use that word in the

English or in the French sense. They have not used eyes, hands, and feet for several years without learning something. . . . It will be of real advantage to make use of his scraps of knowledge instead of trying to wipe the slate clean and make a fresh start. . . . We should at first avoid all abstractions, laws of motion and the like, and study instead of them the opening and shutting of doors, the poking of fires, the use of the tongs, pincers, and hammer." Many useful hints for such teaching would be found in three small volumes on *Elementary Mechanics*, by Mr. Grieve, prepared for use in London Board Schools. Precisely the same treatment should be followed with such pupils when they take up elementary work in Commercial Science, if they are to derive educative advantage, as they well may, from lessons in that. Professor Miall continues: "It is a specially valuable feature of physical study (as compared with Chemistry, etc.) that the same facts can be investigated both inductively and deductively . . . the results gained are immediately applicable to everyday problems." This, again, is true of the Economics of Trade and Industry (chap. vi.).

Some are satisfied with taking as first lessons a series in **Physiography**, those prescribed for the Science and Art Directory, which give an encyclopædic view of natural phenomena; and in connection with the school-work pupils may make an occasional visit to any local museum: thus, in London, to the South Kensington Museum, where they should see the model of a volcano in action, just as pupils from a commercial class might visit exchanges (if allowed) and docks. The boys, in any case, must do work for themselves.

As regards the order of study of branches of Natural Science, when taken separately after such a course of Physiography, we suppose that Physics, Botany, Chemistry, Zoology, Physiology, Geology, will very much represent the views of most teachers in this department of education. For boys of average ability in this connection, however, it will be always best to think only of securing that a *little* shall be *well* done.

Physical Geography claims notice in the present chapter. As defined by Mr. Keltie, in an examination syllabus, its scope lies in its dealing with "the great permanent features of the surface of the earth's crust; their adaptability to the purposes of humanity; the uses to which Nature or Man has put the surface; climate as determined by latitude, altitude, rainfall; temperature; vegetable and animal life." In particular, the relations of the Land and the Water; the significance of oceanic influence and of latitude in determining Climate; the configuration of a region in connection with its rainfall; the respective proportion of Population to Rainfall in various parts of Greater Britain (*e.g.* in India on the one hand, in Cape Colony on the other); the respectively favourable and unfavourable effect of moisture on different industries (*e.g.* on cottons in Lancashire, on woollens in Victoria); the striking phenomenon with regard to British trade of its preponderant concern with products of the Vegetable kingdom; the prevalence in any country of Coal and Iron (as in Great Britain, the United States, and Germany) especially when in close conjunction (in which France is at a disadvantage).

The blackboard will be in constant requisition; and it is well for the teacher to make use of coloured chalks, wherewith to "build up any particular aspect of a region [*e.g.* a river system] before the eyes of his pupils" (Keltie), for which, however, cheap rough paper might be used, as in German schools. Lantern slides are now being employed for increase of interest on the part of pupils; but of course the question of maintenance of discipline arises here.

The better opinion now is that instruction should begin with the particular rather than with the general; with the native land, and first with the district in which the school is situate, rather than with the world at large; that is, with what is empirically familiar; and then proceed from known to unknown. Amongst the many pregnant sayings of the writer of *Wilhelm Meister* is his remark that "Until we have seen our native country, we have no scale by which to judge other

countries."* *Mapping* will come in for consideration lower down.

Like Book-keeping, Geography in general has suffered from bad teaching, and nowhere so much as at the great schools, which were supposed to "humanise" their boys. One, after being several years at a school specially connected with the profession which he was about to enter, came to the writer for instruction in this subject as having failed in it when examined for entrance at the Woolwich Academy. He stated that he had hitherto been told to read some portion of a manual in preparation for the Form "lesson," which consisted of mere questioning upon the book. When taught rationally by aid of map instruction, this became a new, vitally interesting subject to him.

Readers who are engaged in teaching would do well to read the chapter on this subject by Mr. Oldham, in *Aims and Practice of Teaching*, where is the all-important remark, "The main point to strive for is the elimination of the unnecessary and emphasising of the important features," which bears especially on the treatment of Political Geography so called.

The teacher of Physical Geography should, if possible, be one of the Science staff of the school.

The **Study of Commodities** connects itself essentially with that of Natural Science, and with the Chemical Laboratory in particular. There can, of course, be little scope for it in the absence of a museum; but something can always be done, as in elementary schools, through "object lessons." Some indication of procedure has already been given in the *Introduction to Commercial Science*.† The science instructor would confine himself to analysis and microscopic manipulation, as for detection of faults and of what is not genuine, with the conditions under which the article is produced, the sources of supply of raw material, and manufacturing processes, leaving to the teacher of Commercial Geography to deal with their commercial distribution (statistics), or incidents of transport and market, as well as the history of

* Bk. viii. chap. vii. † Lessons xvii.–xix.

the trade and the particular product (see chaps. iv., vi., ix.). Mr. Oldham takes cotton in illustration, which he deals with instructively. Every pupil should have access to the object for examination: and this in whatever stage of the process, *e.g.* cotton wool, yarn, and cloth. They should familiarise themselves with the staple of the fibre and the use of any instrument for its measurement by millimetres, centimetres, etc. Varieties of colour, again, would not be left without remark. In a Commercial College such instruction would be reinforced by lectures, illustrated by the lantern, and given by experts. Such have been given in the Liverpool Evening School of Commerce by a local cotton-broker. The work of the day department of these institutions must be of a general character. The advantage of this study is recognised in Schönberg's *Handbook of Economics*, where Professor Lexis speaks of it as "enlarging the mind's eye, and enabling a learner to make his way more readily in any speciality."* The Commercial Academy at Vienna excels in this department. In the Description of Commodities, we may repeat, Natural Science, Geography, History and Economics all have a voice. Any traders who discredit preliminary instruction of this kind are short-sighted. We agree, however, with Dr. Ziehen, of Frankfurt-a.-M., that only the more important typical products should engage attention as far as class-work is concerned,† and such does seem to be the practice of all the institutions which the present writer has visited. Such suggestions as Dr. Ziehen makes with regard to special maps and atlases are not without appreciation in this country. Every pupil should possess an atlas of Physical Geography and of Commodities like that of Langhans.

DRAWING is a subject happily obligatory under the Code of Elementary Education; and for expenditure under this head the public should get good value. "In my judgment," said Professor Huxley, "there is no mode of exercising the faculty of observation and the faculty of accurate reproduction

* Vol. ii. 2, p. 230.

† *Journal of the German Association*, vol. ii. p. 53.

of what is observed, no discipline which so readily tests error in these matters as Drawing properly taught." And he explained that he spoke of the "figuring natural objects, making plans and sections, approaching geometrical rather than artistic drawing." Schumann, a German writer on Education, speaks of it in the following terms: "Drawing trains the senses in the apprehension and discrimination of form, in size and distance, and thus quickens the sight for natural objects, so as to aid other instruction. It promotes delight in order . . . practises the hand, which thereby acquires skill, not only for drawing, but for other purposes."

Mr. Ablett, from enthusiasm for his subject, would have a child taught to draw before a pen is put into its hand. It is surely enough to say that pen or pencil alike may be put into its hand for use according to its own fancy, without attempting to *teach* it anything except by way of kind criticism.

The Scotch regulations are: "The course in its earlier stages should embrace instruction in freehand drawing, model drawing from common objects as well as from geometrical models, and drawing to scale of plan, elevation, and section. It should be followed or accompanied by simple exercises in the elements of *design*. In the higher stages the course may bifurcate, attention being given principally either, on the one hand, to the development of artistic faculty, or, on the other hand, to the instruction of the pupils in the various forms of mechanical drawing, which find practical application in the workshop and the drawing office." Geometrical, from its technical bearing, is the most useful of all branches of Drawing; but, as Mr. I. H. Morris neatly says, it is in any of its aspects "a common language throughout the world." "The subject," as he says, "should be arranged, as far as possible, to aid other subjects of study." Under Geography, the Scotch Department provides, naturally, for "elementary exercise in surveying and mapping"; and Professor Miall remarks, with reference to our present subject, "There is nothing better to begin with than map-drawing," as we have found from experience with boys. He goes on to say, "The

child of eight may be allowed to use tracing paper, but we shall soon advance to ruled squares, and learn what drawing to scale means" (p. 251). Mr. Morris suggests a course for boys from ten to sixteen (p. 73). For one beginning at about the age of twelve "geometry and freehand may be combined to a great extent, the geometrical figures forming the foundations for designs" (p. 74). As constantly in educational work, the blackboard will be needed for "showing right methods of working and pointing out common effects" (p. 75).

Some examination questions on Arithmetic, academical and mercantile Algebra, and Geography will be found at the end.

LITERATURE

MATHEMATICS IN GENERAL.

For Teachers:—

De Morgan, Papers in the *Penny Cyclopedia*, reprinted at Chicago (Open Court Publishing Company, 1890) as *Study and Difficulties of Mathematics*.

Wormell, "Mathematics," in Barnett, *Teaching and Organisation*.

Waitz, *Allgemeine Pädagogik: Die Mathematik*.

ARITHMETIC.

For Pupils:—

Barnard Smith, *Arithmetic for Schools*. Edited by Prof. Hudson.

Hamblin Smith, *The Metric System*. For Elementary Schools.

Crittenden, *Commercial Arithmetic*. Philadelphia.

Howard, *The Art of Reckoning*. Pupils' Edition.

Merrifield, *Technical Arithmetic and Mensuration*.

For Self-taught Students:—

Layng, *Arithmetic, with Numerous Examples*, etc. Commercial parts very good.

For Teachers:—

Arnold Forster, *The Coming of the Kilogram*.

Taylor, *Lesson Notes* (Nos. 58, 72, 137, 139).

ALGEBRA.

For Pupils:—

Hall and Knight, *Elementary Algebra*.

" " *Higher Algebra*.

For Teachers:—

Mathews, in Spencer, *Aims and Practice of Teaching*.

GEOMETRY.

For Pupils :—

Kitchener, *A Geometrical Note Book.*

Bert, *Experimetal Geometry.* Edited by Mrs. Arnold Forster.

Mackay,
Casey,
Hall and Stevens,
Taylor,
Layng,
} Editions of "Euclid," with Exercises.

For Teachers :—

Workman, in Spencer, *Aims and Practice of Teaching.*

Bradshaw, *First Step in Euclid.*

Wilson, *Modern Geometry.*

TRIGONOMETRY.

For Pupils :—

Lock, *Trigonometry for Beginners.*

,, *Elementary Trigonometry.*

MIXED MATHEMATICS.

Grieve, *Elements of Mechanics.* Three small volumes.

Gallatly, *Mechanics for Beginners.*

NATURAL SCIENCE IN GENERAL.

For Teachers :—

Waitz, *Allegemeine Pädagogik : Die Naturwissenschaften.*

Miall, in Barnett, *Teaching and Organisation.*

Syllabus of an Elementary Course, etc. Whittaker.

Elementary Course :—

Gordon, *Elementary Course of Practical Science.* Part I.

PHYSIOGRAPHY.

For Pupils :—

Simmons, *Physiography for Beginners.*

PHYSICS.

For Pupils :—

Stewart (Balfour), *Lessons in Elementary Physics.*

For Teachers :—

Stewart (R. W.), in Spencer, *Aims and Practice of Teaching.*

Taylor, *Lesson Notes* (Nos. 121, 141–2, 145–6).

CHEMISTRY.

For Pupils :—

Perkins and Lean, *Introduction to the Study of Chemistry.*

For Teachers :—

Armstrong, in Spencer, *Aims and Practice of Teaching.*

For Pupils:— PHYSICAL GEOGRAPHY.

Geikie, *Lessons in Physical Geography.*
Chisholm, *Elementary Commercial Geography:* Introduction.
Zehden, *Commercial Geography:* Introduction. Translated by Muirhead.
Devine, *Economics.* Chapter ii.
Grove, *A Primer of Geography.*
Lyde, *Man on the Earth.*
,, *Man and his Markets:* "Environment."
Mill, *Atlas of Commercial Geography.*
Langhans, *Kleiner Handelsatlas.* Gotha.

For Teachers:—

Taylor, *Lesson Notes* (Nos. 73-81, 147-8).
Geikie, *The Teaching of Geography.*
Chisholm, *Handbook of Commercial Geography:* Introduction.
Keltie, "Lecture on the Teaching of Geography." *Educational Times*, July, 1890.
Oldham, in Spencer, *Aims and Practice of Teaching.*
Gonner, in Barnett, *Teaching and Organisation.*

For Pupils:— STUDY OF COMMODITIES.

Miall, *Object Lessons.*
Simmonds, *Handbook of British Commerce.*
Whitfield, *Introduction*, etc.: Lesson XVII.

For Teachers:—

Waitz, *Allgemeine Pädagogik: Methode des Anschauungsunterrichtes.*
Seubert, *Handbuch der allgemeinen Waarenkunde.*
Langer, *Elemente der allgemeinen Waarenkunde für Handelsschulen.*
Bayles, *Les Produits commerciaux et industriels.*

For Pupils:— DRAWING.

Taylor, *Drawing and Design.*
Elderton, *Maps and Map-Drawing.*

For Teachers:—

Schumann, *Lehrbuch der Pädagogik: Das Zeichnen.*
Ablett, "The Teaching of Drawing in connection with Technical and Commercial Education." Report of Congress of 1897, pp. 85 ff.
Morris, in Barnett, *Teaching and Organisation.*
Knörk, "Drawing in Commercial Schools," in *Journal of the German Commercial Association*, vol. iii. pt. 2, pp. 62 ff.



CHAPTER IV

PRINCIPLES OF BUSINESS AND ITS MODERN FEATURES

"Learned men with mean experience would far excel men of long experience and outshoot them in their own bow."—BACON.

IN the two chapters immediately preceding so much of the general topic has been discussed as could form part of all school education; and we must now go on to consider that which will engage attention more particularly in colleges of commerce. As we proceed, some indication will be given of the limited extent to which the various subjects introduced may receive attention from teachers in the schools.

Léautey has said that nothing is more likely to secure the pupil's attention than giving him at the outset some general idea of the lessons which he will receive. In the present chapter we shall offer the teacher some aid in bringing before pupils that which will be presented in more detail in chapters v.–xi.; that is, "business" will be treated in its broad outlines, using this word with reference merely to such work as contains a commercial element, and not in the sense of its conventionally vague use. One may read in any daily newspaper that some bishop has left England for several weeks' absence, and the public are informed that "letters on any diocesan *business* of urgent importance should be addressed to his secretary." On the other hand, our reader is invited to think of a commercial employee—the very humblest clerk—as "in business," although not "for himself," the salary of such being regarded as a transfer of part of his employer's claim on society, remunerating the clerk for the aid that he affords to the

master in contributing to the process by which "value" is imparted to the articles traded with. And so in Scotland bank clerks are regularly described as "bankers," whilst every "young German gentleman" who is in evidence amongst us as a competitor with our young men for commercial employment, calls himself a "merchant."

We are to investigate the "principles of business." It is sometimes said that there is no theory discoverable; so much are people wedded to rule of thumb. Business people in general, it is felt, would find it difficult to put down in black and white the principles that guide their action. They dislike or discredit any attempt to do so. Some are disposed to regard such statements as successful teachers are inclined to look upon books on the right way to teach written by those who have failed as teachers; and this notwithstanding that there have been notable examples of works on industrial theory composed by unsuccessful *entrepreneurs*, strong at least in theory: one has but to think of the confessedly best book in its day on Farming, for which Europe was indebted to Arthur Young, who always failed as a practical farmer. Whately, in his *Lectures*, cited the maxim, "The looker-on [θεωρός] often sees more of the game than the players."

Current economic literature supplies the key to the science of what the French call *le haut commerce*, for all those who are exempt in either direction from criticism like that expressed by Bagehot in the following terms: "The theory of business leads a life of obstruction, because theorists do not see the business, and the men of business do not reason out the theories." It is little indeed that is worth studying at all which can be settled by what passes as "common sense" (cp. chap. xii.); in other words, by "the man in the street." Unaided "common sense" was made responsible for the delusive notions once entertained as to Trade Policy. Those who still rely on it do but rely on their own experience; whilst the man of science makes use by induction of the experience of many. The classical school treated Economics

confessedly in too abstract a manner, but writers have mended their ways in this respect, and there is a manifest desire on the part of representative living British economists not merely to be abreast of practice, but to keep in advance of it.

The suitability of this study for school instruction has been well stated by Mr. Armitage Smith, Principal of the Birkbeck Institution, in a lecture given at the College of Preceptors: "The chief aim of school life is . . . that the youth shall be prepared to understand the facts by which he is surrounded, and to deal with the problems which he encounters in the manner most to the interests of the society of which he forms a part. It is a peculiar merit of Economics that, while it is concerned with some of the most interesting problems which will enter into the daily life of everyone, it tends to form the habit of accurate thought, by tracing familiar events to their more or less obscure causes. It especially trains the mind to observe and calculate the whole of the consequences of conduct. . . . The subject is very attractive to young students; it secures their interest at once if taught with intelligence. . . . Boys and girls know something of what is going on in the world, and, like their seniors, are daily forming opinions from contact. They have abundant opportunities of learning the existence of economic questions; strikes and trade unions are familiar terms. Without any systematic explanation they become partisans of one side or the other in a great dispute. They know nothing of deep-seated causes and far-reaching consequences; under the influence of feeling they imbibe views which crystallise and prevent a more judicial inquiry in after years."

What is the aim of business enterprise? A pupil will be led to evolve as answer: Desire for "wealth," *i.e.* satisfaction of wants by production of commodities (Adam Smith used the word in this sense as well as in that of opulence), with hope of "profit," embraced under what is called the pursuit of "enlightened self-interest." This might seem to mean—as it did seem to our ancestors—overreaching by nations or individuals of other nations or individuals; but is understood

now as being purely a matter of "a mutual service."* Contemporary economists conceive of society as governed by altruistic as well as by self-regarding motives: business with them is a "co-operative organisation." English writers in particular can claim to speak for a nation of shopkeepers, which is at the same time a nation of philanthropists; of this the world is reminded almost every year by the opening of a "Lord Mayor's fund," as well as by the ever-continued maintenance of innumerable charities. The most abstract of English writers on Economics, David Ricardo, exhibited in no small degree the beneficent character of his countrymen in general.

Two leading ideas will have been introduced—Wealth (we shall follow recent English writers by also using the term "GOODS") and PROFIT; these the teacher must develop, and *end* by requiring pupils to *define*.† Qualifying words, "social" or "national," and "individual," "gross" and "nett," will follow, according as these terms undergo limitation; and then the constituents of any such limitations will be discriminated. Thus, under National Wealth, foreign stock (chap. ix.) held by Britons will be included; whilst anything that needs to be excluded must receive equal attention.

The different aspects of wealth, according as it is produced (chap. v.) or exchanged (chaps. vi., vii.), or partitioned (chaps. v., x.), must receive successive treatment. Under the head of "Production," prominence should be given to LABOUR and CAPITAL, as those of its agents which are not only characteristically under the complete control of man, but at the present day come specially under the notice of all who have reached the age of discretion, as in frequent conflict; but in this chapter we shall glance also at the part taken by Nature, which in many treatises on Economic Science is taken first, Land being of course the original source of Goods.

* WHATELY, *Lectures on Political Economy*, vol. iv.

† It will sometimes be found a good exercise to subject to criticism the definitions offered by various authorities; thus J. S. Mill's definition of Wealth (things useful and agreeable) would exclude such things as cotton yarn, which have not reached the stage of either category.

Those leading characteristics of modern society which come into account, such as economic Freedom, will need preliminary notice. When the way has thus been cleared, LABOUR will be considered in its general features. There has been much discussion as to which forms of human activity may be classed as "productive," so as to call for recognition by Economics, and which are to be regarded as "unproductive." Numerous distinctions have been made in this respect which now are considered unnecessary or uninstructive; there is much useful work which may be regarded as belonging to either category, according to the particular point of view taken. One may even look upon all customers as in a sense producers, from their furnishing the "sinews of war" which keep the productive organism at work.

The various conditions which respectively favour and hamper Labour—division of employments, etc.—including those which induce its "mobility," or transference from one pursuit or locality to another, and the importance of no restraint on man's freedom to do so, will be studied successively. These aspects of the subject carry the reader no further than individual interests, men working, in isolation, each on a small scale, with either absolute or relative independence. But it is necessary to think of them likewise as working in combination, producing on a large scale, some of them, and most, as dependent on others for the provision of labour more or less remunerative; that is, upon those who can hire their services in aid. This will lead to the consideration of how a business establishment is created; in other words, to the study of the second factor of Production above named.

Coming, then, to CAPITAL, the teacher, to aid pupils in arriving at a right apprehension of the nature of it, may make use of their existing knowledge of familiar transactions of everyday life, and by means of question and answer, of correction and amplification, collect materials for a definition, instead of taking one ready made and endeavouring to bring it within their comprehension, independently of previous investigation of the common facts of life. Some oral instruction should

always precede the use of any reading-book or other manual, as with other educational subjects

With regard to any definition of Capital, it will be necessary to observe that many writers in the definitions they offer have regard merely to one aspect of it. Capital may be viewed from three standpoints, respectively those of the producer, the trader, and the ordinary consumer. The definition commonly given, as by Mill, applies to Industry: All wealth saved in the service of production. Adam Smith's definition, That portion of a man's stock which is to yield revenue, *i.e.* profit, applied to Trade and the Money Market. Finally, "Capital" is a term used by the general public of funds invested in a dwelling-house, etc., which may be called "Consumers' Capital," as distinct from "Trade Capital," spoken of indifferently by manufacturers and dealers.

One may start with the inquiry whether it makes any difference to a man as to the amount of toil his work will involve, whether he have capital or not; then the forms taken by it will be considered; and a reference to the etymology of the word will introduce some account of the history of the growth of Capital to its present dominance in economic life. The "mobility" of this productive agent in turn may be illustrated by its constant diversion from one part of the British Empire to another; in particular, by the Emigration of young Englishmen seeking to lead capital of their own under conditions conceived to be more favourable than those which exist at home, or to superintend that of others; in either capacity, as Bagehot has remarked, cementing the ties that link Great Britain not only with her colonies, but also with other regions, in every quarter of the world, and thus promoting the maintenance of general harmony. British capital, by investment abroad, for example in the United States, may aid trade competition with this country. In the year 1900 it was estimated that the amount of German capital invested in foreign countries is from £350,000,000 to £375,000,000, not including investments in foreign loans and speculations.

The **Capitalist**—spoken of by Adam Smith as "undertaker,"

a term to which Continental writers adhere by close rendering —is a prime leader in the organism alike of the industrial and the commercial world. He has been compared to a General, who conceives the "plan of campaign" and directs its execution. He mobilises the men, issues orders to his immediate subordinates (managers or foremen), who in turn see to their execution by others (operatives or clerks), the majority of whom make up the ranks of "Labour" in its conventional sense. Nevertheless, business capacity, as the experienced manager of a trading commercial firm in London has said, largely "consists in attention to *details*, and the faculty for grasping and arranging these simply and consecutively," which declaration may be likened to the dictum that "Genius is the capacity for taking infinite pains." As needing, then, and using the aid of others, the Capitalist is an Employer.

"*Capitaux*," it may be remarked, is used by French writers in a more elastic sense than "Capital" obtains in English. This seems to arise from their being still influenced, through J. B. Say, by Adam Smith's loose use of the term "stock," meaning in his work sometimes effects intended for consumption, and sometimes those to be used in business. Our "Capital" should be confined to the expression of the latter form of wealth; but some English writers occasionally fail to add an "interpretation clause" when using this word ambiguously.

Fawcett, in his *Manual of Political Economy*, has emphasised the supreme importance of understanding the conception of Capital. Even he, however, was unfortunate in committing himself to the assertion that inducement to save—Capital being usually regarded as the result of saving—is measured by the current rate of profit; for this is disproved by the history of the Dutch contrasted with that of our American cousins. Such assertions come of confining the induction to a single nation, as the British. High profits have indeed obtained amongst us alongside of habits of thrift, but those habits were formed at a time when profits were low, and it is tolerably certain that they have been somewhat impaired by

the increased rate of profit in this country. Moreover, saving takes place in proportion to the degree of security or certainty, being great or small according as insecurity predominates or not.

The exchange of goods, by which they pass primarily from the producer of the raw material to the ultimate consumer, is effected, as the teacher will proceed to explain, through the medium of Money (chap. ix.), this being used by each successive recipient of the article, intermediate between such grower and consumer, for discharge of the claim of the one immediately above him: as one of the older English writers says, "Money flows in one direction, commodities in another." At the present day the first of these to pay any cash is, in fact, the last in the series—the consumer; and this by virtue of the system of **Credit** (*ibid.*) which obtains all along the line backwards from the retailer, with whom the public deal. When he pays his warehouseman the latter passes on all but his profit (below) to the next above, and so on to the first producer. The system may be compared to a file of soldiers relieving guard. Convenient as it is in dispensing so largely with cash, credit nevertheless facilitates excessive purchasing, and so little money in use to do so much explains rapid spread of disaster, from the dependence of business houses on each other. A credit is, however, more elastic than a cash basis, such as that which obtains in the United States. All this may be developed by the aid of hints given in a later chapter (ix.).

Before introducing the factors of the partition of the proceeds of business transactions, the teacher should give an elementary exposition of **Value**,—a topic not brought in by J. S. Mill until the department of "Distribution" has already been dealt with; but the remarks of that writer at the beginning of the first chapter of his Third Book on the fundamental importance of the notion of value should be read and re-read. The teacher will have to speak of **Market** when treating of wages (the "labour market"), and not only of "produce markets," the "money market," etc. Mill supposed

that the theory of Value was complete,—an idea that recent investigation has seriously disturbed. What he calls "the extreme limit" of value has been much developed, since he himself wrote on the subject, by both British and Austrian writers. The pupil should learn that Value depends primarily on **Supply** (closely connected with production), and secondarily on **Demand** (the state of the market or exchange), reciprocals of each other. Marshall shows very effectively how "Distribution" is resolvable into exchange of products for productive *services;* that the economic topic "Exchange," on the other hand, consists of exchange of products for *products.* We shall revert to this subject in several succeeding chapters, but its chief interest for mercantile students of course belongs to the sixth of these.

Having that important commodity called MONEY, men of business find it possible to calculate their PROFIT. The principle by which they are governed with regard to Profit and Loss is "the law of the least sacrifice": the aim is to obtain the greatest possible result for the least expenditure of capital, and exercise of a minimum of effort or employment of smallest possible amount of labour. "Profit," as used in science, generally means *gross* profit; whilst in the mouth of a man of business it must usually be taken for *nett* profit. The manufacturer must estimate the expenses of production of the finished article which he turns out, and also Interest on Capital, whether his own or that which he has borrowed, which items he will deduct from the price he can obtain from the dealer, and so arrive at his own true profit, the residual, differential reward of his business ability.

The trader, of whatever status or denomination (chap. vi.), should proceed with his computation similarly. Mr. G. Lisle, who is acquainted with the economic theory of profit, has some judicious remarks on the subject in his *Accounting in Theory and Practice.* The various forms of "Rent" will be discriminated: the narrow technical sense which the term bears when one is speaking of land under cultivation, the

"ground rent" levied on a building, the "improved (rack) rent" of a shop, etc., and those differential payments for any of which recent English writers make use of this word. In all cases it expresses a payment for something in the nature of a *monopoly*. Walker has well worked out the analogy between Rent and Profit, neither of which forms part of the expenses of production.

"Interest" enters largely into the gross profits of trades in which much *fixed* capital is used. As representing a claim of one loaning circulating capital, it is remuneration for "abstinence"; if it be taken by the capitalist employer, it will be the share of profit which he would presumably receive from its transference to the business enterprise of another person or persons.

"Wages," so far as this item concerns people employed by the head of the concern, will be conveniently considered in the next chapter. The labour exerted by wage-earners is mainly muscular energy aided very much by machinery. The employer's own labour will be remunerated as head-work, much of which may be given by a substitute, as the manager of a public company, who takes this share.

The "indemnity for risk," to use Mill's words, finds expression in the amount which our man of business may pay to an Insurance Office (chap. vii.) by way of protection against losses of any kind; we have but to particularise failure of customer-firms, fall of prices, dishonesty of employees, fire, shipwreck. In some trades, as those for fancy goods, or any inflammable material, the insurance element is of great importance. All the world over, business men look to the question of risk as that which more than aught else determines their residual profit; not only in the days when Consignments (chap. v.) were spoken of as "Adventures," nor only in America, whose writers naturally emphasise this item of Profit, but in England (see the chapter on "Profits" in *The Wealth of Households*, by the late Mr. Danson, of Liverpool) and in Glasgow, no less than in New York, in Hamburg and Marseilles. Taking this view, they should not include "Insurance" in

expenses of production, but treat it as a part of their residual profit.

Within the same country larger gross profits for one must mean smaller gross profits for another; but by reason of competition (below) the rate of profit in all businesses tends to equality. Capitalists, observing that one line of enterprise "pays" better than another, may be expected to transfer their funds from a less to a more remunerative industry or trade. Where, however, competition is restricted to a few capitalists (below), the rate of profit may be above the average.

Unusually large profits, such as those for cotton wool of late, in the hands of growers, etc., tell upon business done in the Money Market (chap. ix.), for the firms enjoying such profits are emancipated from dependence on Banks, and can hold out for their own price, thus avoiding immediate sales.

Such considerations as those here submitted as affecting Goods, Labour, Capital, Money, Profit, are worthy of and suitable for study by our boys in at least the last year of their school-life. All that follows has regard rather to the curriculum of a Commercial College, or to the private studies of those of more mature age.

As the student advances, his attention will alternate between theoretical and descriptive Economics; he will find the need of the aid of economic history, and of statistics in each department of inquiry, and must learn how to read and manipulate them; and this in application especially to Production, National Wealth and National Revenue or Income, Consumption, the number of factories in various industries, Wages, number of the unemployed, Index Numbers for comparison of Prices at different periods, Foreign Trade (imports and exports), Communications (railways, merchant shipping, etc.).

The economic progress of a people will of course be largely and chiefly measured by its Income from year to year. In 1858 Leone Levi gave that of the United Kingdom at 600 millions sterling, but in 1866 as 745 millions; whilst more recently Sir R. Giffen has put it at 1,500 millions. These

figures will of course be compared with estimates made for other countries. Let the reader, however, be clear as to the constituents of such income; if we say summarily that it consists of goods finished and furnished fit for consumption, that will afford an approximate notion of it. The National Wealth itself may be regarded as consisting of this Income (clothes and food), supplemented by the fixed capital in the whole country.

Let us now glance at some leading features of present-day Business. And first, the extent to which **Speculation** enters into it. As no absolute certainty attaches to any mundane affairs, it may be taken that speculation in one form or another is inseparable from the conception and conduct of business. The constant tendency, however, is toward increase of it in the course of social and political progress. The spirit of enterprise is most deeply seated in men of the Teutonic race. The English led the way; the Anglo-Americans have distanced them; whether to be outdone by Germans in Europe remains to be seen. At any rate the great Trade struggle of the immediate present is between these three peoples. Speculation, then, is most developed amongst them, the Americans at present setting the fashion. It has a healthy and an unhealthy form. Legitimate speculation may be provident, such as the dealings of Lancashire spinners or manufacturers in cotton "futures" to secure their supplies of raw material for twelve months and the due execution of their contracts within that period; or it may check fluctuations in prices, as it in fact does in all markets in which it prevails extensively. In such cases it is manifestly salutary. On the other hand, mere gambling must ever introduce a disturbing element into general trade; men take their luck, and when it is adverse must act as blindly with regard to remedies as they did in that which induced the trouble. This lacks the moral basis on which happier forms of speculation rest; and it is governed by no economic principle: it deteriorates the individual character (chap. xii.) and involves others than oneself in its baneful results (chap. x.).

A yet more striking characteristic is the keen **Competition** that prevails. One service which it renders is that it secures conformity of remuneration to sacrifice, and of the value of a thing to the cost of its production; because any considerable rise of price will tend (1) to increase supply, or (2) to contract demand, or (3) to bring some rival substitute into the market. Competition has taken an international form, as an accompaniment of imperial and colonial expansion or aspirations. The competitors most likely to succeed in the international struggle are they that have the best mental equipment, the widest, most exact knowledge of wants (markets) and access to them; who, in familiar language, are up-to-date. The Germans first learned from the Americans, as in regard of factories and tools; and in turn have become teachers to Transatlantic observers; whilst both nations may teach something to Great Britain. This may come about through our traders paying more heed to Consular Reports (below). One from France, issued by the Foreign Office (below) in 1896, received a notice in various British journals, and may be used as typical of the service which the commercial representatives abroad seek to render to their countrymen at home. Mr. Gurney was one day visited by an English traveller in the agricultural implement trade who, the consul reported, "confessed, in reply to my first question, that he understood no French, and could not speak a word of the language. A very persuasive German commercial traveller called at this office, hoping to put me on the books of his firm as a customer for Rhine wines. His knowledge of French and English was perfect. . . . It was quite impossible, he assured me, to do anything by correspondence. Personal interviews alone were of any use, and were mostly successful. Many of the orders were naturally not large, but they gave him a foothold, which often led to better things, as his prices were moderate, and he relieved the purchasers of all trouble by having receiving agents of his own in France, who saw to all formalities connected with carriage and customs, and delivered the goods free of all charge at the purchaser's domicile for the price agreed upon.'

The consul deplored the system of posting price-lists and circulars made out in English, with English weights and measures—hieroglyphics to the foreigner—and the system of "take it, or leave it." Thanks to the start now made in the rational teaching of foreign languages in England, some leeway is being made up, and "the war carried into the enemy's camp." This is illustrated by a case known to the present writer. A young man took a daily lesson for nine months in German at the Gouin School in Liverpool (chap. ii.), and now travels successfully in Germany for an English upholstery house.

Besides travellers, there is need of foreign agents of British nationality. Contemporaneously with the report from France our Foreign Office received one from Morocco. Consul Maclean wrote: "There are several German firms on the coast whose principal business has been derived from British agencies in their hands. Their profits they employ in importing German goods. . . . In these days I question the wisdom and patriotism of British business abroad being entrusted to foreign houses, and I doubt if in Morocco it is profitable to the home firms." It is just the same with British trade in Austria, Poland, etc. The people of those countries send their agents here; just now it seems as if competition from Austrian makers of small hardware will ere long be serious. Moreover, in the first lecture of a course on Chinese delivered by Professor Douglas at King's College, London, in 1889, he observed, with reference to the study of Oriental languages at Berlin, Paris, Vienna, and St. Petersburg, that "Englishmen cannot continue indifferent to these studies unless they are prepared to see others pass them in the race, and to resign contracts and concessions into the hands of more enterprising Continental rivals." Similarly, the late Professor Max Müller, writing to the *Times*, at the beginning of the following year, made some remarks as to the Eastern trade, to which subsequent events have given point: "England cannot live an isolated life. She must be able to breathe, to grow, to expand, if she is to live at all. Her productive power is far too much

for herself, too much even for Europe. . . . To allow herself to be forestalled or to be ousted by more persuasive competitors from those vast fields of commerce would be simple suicide. Our school says to every manufacturing town in England, Help us, and in doing so, help thyself. . . . We want it for the very existence of England; for the vital condition of her existence is her commerce. . . . Let the world call England a nation of shopkeepers—*omen accipio*—but let England show that she means to keep her shops against the world."

In the first extract reference was made to the nation's adherence to antiquated weights and measures (cp. chap. iii.), which "handicap" all efforts to hold the field. Merchants, speaking through resolutions of the Associated Chambers of Commerce, are substantially unanimous as to the need of change, so that any difference of opinion on this subject seems to affect the industrial side of the country's trade. But whether the Metric System and Decimal money, for the sake of uniformity, supersede the weights, measures, and money now used or not, it is certain that only sufficient instruction and practice in schools is needed to enable any young clerk to convert from English to foreign denominations.

How is one to explain, save to the discredit of this country, that we imported in 1900 more than 2,000 million eggs, for which nearly £1,000,000 was paid to Denmark, a country less naturally adapted for their production than the United Kingdom? It is to be hoped that the Kent Poultry Company, Limited, just announced as starting operations near Dartford, may lead the way to a change of this state of things.

Such are the chief defects noticeable on the commercial side, in what may be called the outworks of British economic struggle with foreign rivals. It was unnecessary to carry the inquiry into banking operations, in which this country easily leads, as exhibiting a model which admits probably of only the slightest possible improvement (chap. ix.); otherwise we should have to begin the fault-finding there, banking statistics, together with those of the National Revenue (chap. viii.),

affording joint index of the state of Trade and of Industry behind it.

The considerations which arise in respect of British manufacturing and transport industries will be detailed in chapters v. and vii. respectively. It will be enough at the present stage to reproduce the summary of Mr. T. Fielden, which appeared in a London newspaper of wide circulation during the closing days of the century now just left behind: (1) The general indisposition to adopt improved appliances and use up old material. (2) Neglect of a standard type of construction; that is, tools or machines "adapted for the greatest use of the greatest number of customers." (3) Slowness to use approved commercial methods. (4) Backward education of economic value. (5) Restriction of output forced upon employers by workmen's organisations. (6) Failure rapidly to complete large contract work. (7) The disadvantage from which Great Britain suffers through protective tariffs (chap. viii.).

As to the ethical aspect of competition, see chapter xii. under "Citizenship."

Next as to the **Organisation of Capital,** the association of capitalists, which is carried now into every department of business. Formerly on the manufacturing side we should have found domestic industry covering the land, and the system of gilds, not combining the capitals of their members, and so like the Regulated Companies found in commerce. Such associations as that of the Merchant Adventurers made no advance beyond the stage of mutual assistance. Then came the great Chartered Companies, such as the East India Company of old, or the South African Company organised by Mr. Cecil Rhodes, by means of which our Colonial Empire has been so largely built up. Alongside of this early form of such companies appeared Partnership at Common Law, which made an inroad on individual competition, and especially as it developed into Joint Stock Company enterprise at home, recognised also by the Common Law, but at the cost of "unlimited liability" to the shareholders. Within the memory

of many readers came statutory introduction of the system of "limited liability," which has aided increase of wealth from enabling private individuals with money, otherwise employed less advantageously, to finance, with comparative safety, men engaged in business. The acceptance of this principle marks the rapidly advancing tide of amalgamation of Capital. It has reached high-water mark whilst many of our younger readers have been at school, in the American Syndicates or Trusts, spoken of as "Combines," which, with the ostensible object of checking competition and controlling supply (chap. vi.), bid fair to end themselves in unrestricted monopolies. The Standard Oil Company, of which Mr. Rockefeller (chap. i.) is the soul, has been a familiar example of so many American concerns of this type, quite overshadowed now by the United States Steel Corporation just announced (February, 1901), with a capital of $1,100,000,000. We have already many amalgamations at our own doors. The textile trades show the principle on a vast scale: take the Bleachers' Association, consisting of fifty-three firms, with combined capital of £6,000,000; the Yorkshire Woolcombers' Association (thirty-eight firms), the Bradford Dyers' Association (twenty-five Lancashire and Yorkshire piece goods dyers' firms), the Flax Machinery Trust (Leeds and Belfast), the British Cotton and Wool Dyers' Association (twenty-five Lancashire, Yorkshire, and Scottish firms), the Clyde Iron Amalgamation (fourteen firms), the Armstrong and Whitworth Amalgamation, the Borax Syndicate, etc.

These associations claim to economise cost of production; but it is certain that they minister to irregularities of employment, especially of managers. When, however, Capital and Labour unite to maintain any, its power is irresistible. Workmen in South Wales adopt the principle of combination to curtail supply in their own separate interests.

Very many that figure in the newspapers are merely company-promoting speculations.

The Westphalian Soap Trust is an example of like combinations in Germany.

Co-operation obtains both in Industry and Trade; in the one case, that is, between those who would be employees, as makers, and in the other between those who would be mere assistants, as dealers. English writers (amongst them Cairnes and Jevons) speak of it as aimed at the extinction of the Capitalist, by conversion of the employee into a capitalist; but it is better to say, with the American economist F. A. Walker, whose statement is more comprehensive, that it consists in the removal of the distinction between masters and employees, between profits and wages, the employees becoming their own employers, and receiving their income not as wages, but as profits. The English Land Colonisation Company attempts an experiment in this direction in our possessions abroad.

It will be of convenience here to add some remarks of a general character on the relations between Business and the State, which regulates it, on the one hand by way of promotion, and on the other by restriction: whatever the forms of interference, they are indifferently exercised from reasons of "public policy." This regulation is seen in each of the three sections of Government—the legislative, the judicial, and the administrative. In the first we find statutes of the realm affecting both industry and trade; in the second it appears in the decisions of the Courts, partly interpreting such legislation, and partly declaring the custom of traders, *i.e.* the Mercantile Law; and in the third various departments of the Civil Service execute duties imposed upon them by industrial and commercial legislation. The *Home Office* administers matters regulated by Factory and Mining legislation; the *Board of Trade*, in particular, is entrusted with registration of Companies, the grant of commercial Charters, supervision of Weights, Measures, and Railways, custody of register of Merchant Shipping, preparation of Trade Returns, communication to inquirers of Commercial Intelligence in a special Branch opened in 1900, and administration of the Bankruptcy Acts, etc. (chap. xii.); the *Treasury* is concerned with the raising and expenditure of the Revenue (chap. ix.); the *Local*

Government Board in the Local Taxation and Sanitation, etc.; the *India Office* with India; the *Colonial Office* with the relations of Greater Britain and with Emigration; and the Commercial Department of the *Foreign Office* with the negotiating of Commercial Treaties with other nations, and the direction of the duties of British Consuls and Commercial Attachés and Agents.

The writer is indebted to the late Permanent Secretary of the Board of Trade for some suggestions which may be useful to any interested in employment in any of its departments. Sir Courtenay Boyle wrote: "If the instructors of future Civil Servants can imbue their pupils with intelligence, industry, and accuracy, the machinery of the Government Offices in which those pupils serve will work the raw material into shape. Speaking quite generally, in addition to the qualities just mentioned, a knowledge of modern languages, and some proficiency in English Composition and Précis Writing are likely to prove of use." In the special chapter on Taxation we shall trace the duties of a Clerk in the Customs.

The history of British Economic Policy must be examined in the higher stages of study. No teacher should fail to bring out in his instruction the advances towards State Socialism made by Victorian legislation.

Besides securing the fostering hand of Government, the interests of the country's Business engage the energies of Associations such as the Chambers of Commerce, whose functions we shall enumerate in the special chapter on Trade.

LITERATURE

For Pupils:—

Palgrave, *Political Economy Reading-Book.* National Society.

Jevons, *Primer of Political Economy.* Chaps. iii.–vi., xv. in particular. Italian translation by Cossa.

Symes, *Short Text-Book of Political Economy.* Contains Exercises. Chaps. i.–iii., v., xv., xvii. in particular.

Walker, *First Lessons in Political Economy.* Chaps. vi.–viii., xi., xx., xxii. in particular.

Marshall, *Elements of Economics of Industry.* Chap. ii. in particular.

Devine, *Political Economy.* Chap. iii. in particular.

Whitfield, *Introduction to the Commercial Sciences.* Part I.
Gibbins, *Economics of Commerce.* Chaps. i., ix., x., xii. Methuen.
Jackson, *Primer of Business.* Chap. i. Methuen.
Edwards, *Commercial Law.* Chaps. i.-xii., xx.-xxii., xxvii., xxx., xxxi. Methuen.

For Teachers :—

Nicholson, *Political Economy as a Branch of Education.*
Patten, *Educational Value of Political Economy.*
Hewins, "The Teaching of Economics," in *Report of 1897 Congress* (pp. 199 f.).
Bastable, *Examination of Objections to the Study of Political Economy.*

For General Readers :—

A. Smith, *Inquiry into the Nature and Causes of the Wealth of Nations.* French translation by Garnier, German translations by Asher, Stopel, Lowenthal.
Ricardo, *Principles of Political Economy and Taxation.* Gonner's Edition.
J. S. Mill, *Principles of Political Economy.* French translation by Courcelle-Seneuil, German by Gomperz.
Schönberg, *Handbuch der Politischen Oekonomie.* Three vols. (five parts).
Jevons, *Theory of Political Economy.*
,, *Methods of Social Reform.*
Bagehot, *Economic Studies.*
Cohn, *System der Nationalökonomie für Studierende.*
F. A. Walker, *Political Economy.*
Sidgwick, *Principles of Political Economy.*
Marshall, *Principles of Economics.*
Gide, *Principes d'Economie Politique.* American translation.
Danson, *Wealth of Households.*
Lisle, *Accounting in Theory and Practice:* "Profit" (pp. 47-51).
Nicholson, *Principles of Political Economy.*
Hadley, *Economics.* Chap. on "Speculation."
Lubbock (now Lord Avebury), "Municipal Trading," in *Contemporary Review* (July, 1900).
Jeans, *Trusts, Pools, and Corners.* Methuen.
Traill, *Central Government.* } Citizen Series.
Farrer, *The State in its Relation to Trade.* }
Board of Trade Statistical Abstract for the United Kingdom.
,, ,, ,, ,, *Colonies.*
,, ,, ,, ,, *Foreign Countries.*
Annual Statement of the Commercial Relations of the United States with Foreign Countries. Washington.
Webb, *Socialism in England.*
Schäffle, *Quintessence of Socialism.*

Courcelle-Seneuil, *Manuel des Affaires.*
Freedley, *Practical Treatise on Business.* German translation by Piening.
Platt, *Business.*
Boyle, *Hints on the Conduct of Business.*
,, Lecture: *Method and Organisation in Business.*
Jones, *Guide to Professions and Business.* Methuen.
The Economist. Weekly.
The Statist. Weekly.
The Economic Journal. Quarterly.

CHAPTER V

ORGANISATION AND COMMERCIAL MANAGEMENT OF INDUSTRIAL CONCERNS

"If the employer have the genius to plan, he can find a thousand helpers, not one of whom but would have been utterly helpless in the face of difficulties and dangers which only bring into keener exercise the powers of the real man of affairs."—FRANCIS A. WALKER.

IN the year 1896 Sir William Preece, Consulting Electrician to the Post Office, speaking at the Yorkshire Students' branch of the Institute of Civil Engineers, said that he thought that a great deal too much was being made of the efforts that Germany was making to instruct its workpeople in technical matters. The Germans had found out where we had beaten them, but it was not in technical education that they were surpassing us, but in business habits and enterprise. The representatives of German houses came to him from all quarters, and he found it was their superior commercial education, not their scientific attainments, which we had to fear. Technical education was all very well in its way, but we must start at both ends. It was quite as necessary that the employer should have technical education as the workman, and sometimes a good deal more. The employer must understand his business.—It is the needs of those destined to direct industrial enterprise that will engage attention at the stage now reached.

The study which underlies all others taken up by one who may be an employer or responsible manager under present-day conditions is ECONOMICS. This should guide him aright, whether for the establishment or the control and management

of any manufacturing concern, and will be of all the more use to those engaged in production on a large scale as joint-stock capitalists. There must be a thorough knowledge of market requirements, access to best detailed information as to grouping of machinery and other appliances for practical usefulness, skill in buying raw materials and in selling the manufactured article.

The first consideration of all, of course, will be that of personal qualities, of aptitude for the particular enterprise, and of personal advantages, although, as Bagehot thought, little good is as a rule done by men whose bringing up has been in a particular business environment taking up work of an entirely different nature from that of their fathers. This is as true of workmen as of employers. Using the language of Professor Walker, business ability will mean "the power, the capacity, the temper required to do business with at least moderate success, in stages of industrial organisation when the division of labour has proceeded far . . . with reference mainly to general rather than to local markets." *

Having selected a manufacturing pursuit, and being about to establish a business, our "undertaker" will have to consider the capital at his command, its sufficiency for the volume of business contemplated. He must calculate cost of materials, of accessories, fuel, etc. Not least, he has to provide for cost of labour. He will, accordingly, require under "fixed" capital, buildings, machinery, plant; under "circulating" capital, raw material, workmen's wages, trade expenses (carriage, advertising, taxes, salaries, etc.); and "specialised" capital, devoted to any special branch of his business, in distinction from his "free" capital. He will take into account any special advantages that he may possess—for example, a patent; and he will include in his forecast any facilities that may be offered by public bodies. This last item will to some extent determine his choice of locality, of site. Transport facilities—carriage of raw materials in the first instance, and then of the finished products—will press for

* *First Lessons*, § 55.

consideration. Here Economic Geography will come to his aid, especially with regard to foreign parts, if he will but summon it. This needs developing for the general student.

Throughout this country, amongst others, there is an existing localisation of industry. What are the causes of this? They may be learnt largely from Physical Geography. Thus the existence of metals or minerals under the soil in certain regions accounts for metallic industries there; the supply of water-power has aided some textile industries; whilst the particular atmosphere has led to the location of others.

Besides such causes, there are those connected with the training of the workers, which can be managed better when many of the same trade are congregated together. The localisation of some chief industries has entailed that of subsidiary ones, which is illustrated by the engineering trades of Manchester and Leeds in connection respectively with the Lancashire and Yorkshire cotton and woollen industries. It would not have been worth while for such works to be established for a single cotton or woollen factory. Here come in benefits of the Law of Increasing returns. Division of labour in its territorial aspect brings out local adaptation.* Government Trade Policy will sometimes explain localisation, as with the restriction of the culture of opium to prescribed parts of India to secure revenue from it.

Tendency to localisation is counteracted by improved Transport, as well as by diffusion of knowledge.

Next in importance, perhaps, to considerations of Transport, as determining where to start a factory, will be that of available supply of Labour. Climate is a potent factor in this, as shown forcibly by Mr. Keltie with reference to tropical countries like Central Africa: "white people cannot do the hard work; if then you cannot get the natives to labour, or cannot introduce labourers adapted to the climate, how are you to develop the commercial resources of the country?" National custom or sentiment, again, as he says, of Spain, India, and China, must not be neglected if one would avoid fatal blunders.

* JEVONS, *Primer*, § 30.

Machine-making, Bagehot pointed out, "is a trade which especially tends to adhere to particular places: it requires easy and cheap supply of the exact kind of skilled labour in the exact quantity in which it is wanted; this you cannot have in a new place." And so may be explained the otherwise "apparently capricious" distribution of various British industries. And further, as to capital, the same excellent authority says an *entrepreneur* "must pay interest on capital borrowed, which can only be borrowed favourably in old countries, where it is plentiful,—one of the reasons why trades stay where they do." Considerations such as these afford examples of limitation of the mobility of Labour and Capital respectively (chap. iv.).

Before a position can be fixed upon, account must be taken of the value of the land, of which the freehold may perhaps be acquired, or a lease taken for a term of years at a ground rent. Then will come the question of buildings. If any exist, considerations will arise as to the extent to which they can be utilised or adapted to actual requirements. With regard to new buildings, there are principles to be observed in laying out a factory or works, such as the following. Shall the whole structure be comprised in one (ground) floor, or shall there be several floors, according to the English or American systems respectively? Here one must consider facility for overlooking the work, as well as of handling materials. Will the material move automatically? Shall it go up, as in cotton-spinning, or down, as in brewing? Will the product be uniform, as in iron works, textile factories and mills, wire works, lead mills, breweries? Will it be multiform, as in engineering works, foundries, brass works, shoe factories, potteries, glass works, clothing works? One has to consider, then, if the material has to be shifted from one part of the premises to another; if the product will be the result of processes on one material, or of processes on many parts of various materials, variously treated and gathered together.

For the purposes of manufacture, regard must be had to the correlation of processes. The manufacture may be *simple*,

or it may be *compound:* in the one case the product consists of one material, operated upon by successive processes; in the other, of materials, subjected to many independent processes, which are finally combined for the finished product.

Of primary importance is the scale on which production is conducted. All modern economic writers and teachers of the science have to bring out the advantages and disadvantages of that on a large scale, and no one has done so in small space more satisfactorily than Jevons. In the fourth chapter of his *Primer* he has shown how it gives large scope to the application of Division of Labour, a topic which Adam Smith himself worked out well. "The more extensive factories become," wrote Jevons, "the better chance there is for finding an employment just suited to each person's powers; clever workmen do the work which no one else can do; they have common labourers to help them in things which require no skill; foremen plan out the work, and allot it to the artisans; clerks, who are quick at accounts, keep the books, and pay and receive money; the manager of the factory is an ingenious, experienced man, who can give his whole attention to directing the work, to making good bargains, or to inventing improvements in the business." To this efficiency of labour Mill traces the power of permanent underselling, which he conceives to be an unfailing test of different systems of production. It is notorious that production on a large scale lessens cost of production, so far as regards first expenses, which are called "general," "fixed," or "establishment"; these become relatively smaller with every increase in the total product. It secures raw materials more cheaply, these being of course bought in larger quantities. It is better able to find markets, agencies, etc. It needs relatively less Capital: a furnace casting 10,000 tons of iron yearly costs less than two furnaces each casting 5,000 tons. It effects more economy in cases of amalgamation of concerns.

The introduction of machinery must render production more profitable, from the mere circumstance that "a much

smaller number of the higher class of workers is needed in proportion to the whole number of labourers employed" (Patten). Economy of machinery itself is effected through division of labour. The quality of the machinery used is an important point: our "undertaker" will have to consider what automatic patented machines he can employ. Specialised machinery turns out work done better and more expeditiously, whilst each workman then needs only one tool, instead of a different one for each occupation. This is one of the lessons which we in England have of late had to learn from America.

The following points will arise for consideration in respect of machinery. How far it leads to increased employment of female and child labour, concentrates industry in large towns, and induces greater monotony of work. One thing, however, would seem to be undebatable — a balance of advantage derivable from it under any circumstances. Machinery must have proved a blessing in lightening human toil.

An emphatic advantage of production on a large scale is that it frees the head of the concern from the pressure of detail which adheres to production on a small scale.

Division of employment is not without disadvantages, which the learner may gather sufficiently from Jevons's *Primer* (§33). The chief are: narrowing of the mind, and fostering immobility of labour. It does not admit, in fact, of much application in certain pursuits, such as agricultural, in which most of the processes succeed one another; whereas it is of the essence of Division of Labour that these should be contemporaneous.

The countries of civilisation differ amongst themselves as regards the extent to which they have recognised the importance of labour-saving appliances in general; the United States take the lead, which in recent years has been followed more closely by Germany than by Great Britain, with her more conservative tendencies. In this country, as Mr. Fielden lately pointed out in his newspaper articles, the beneficial effects of saving of labour have been checked by the trade-

union policy of resisting increased output, which fails to recognise that increased and cheapened output means increased demand. This difficulty has not been felt in America. There the surplus not taken by the home market is sent to Europe at a low price, to compete with European products.

The Law of Increasing returns, enunciated by Senior and developed by Marshall, receives its chief application in connection with manufacturing industries. In mining (specially noticeable with regard to tin) the Law of Diminishing returns is in conflict with it, and indeed affects manufactures so far as the raw material is concerned.

Although general over-production is impossible, there may be over-production in particular branches of industry which attract too much capital and labour.

Successful production comes of adaptability—that is to say, "power of adapting means to end; of making what you want as you want it" (Bagehot); because "whoever pays the cash," wrote the author of *Wilhelm Meister*, "may require the ware according to his liking." German makers proceed on this principle in dealing with backward peoples governed by prejudices. American makers, in a different kind of market, stock for future orders and quick delivery, and adhere to the system of standard patterns and sizes in machines and tools. British manufacturers still hold the field in respect of solidity, for which there will always be ample inquiry, whilst America, perhaps, leads in attractiveness. Transatlantic and German makers alike distance British rivals in artistic catalogues and advertisements. All may well compete in the supply of the market with its actual requirements.

Much, of course, depends upon the price of raw material and rates of carriage, in which we are behind both Germans and Americans.

We may now consider the occupation of those employees who aid the master by clerical work. The management of the concern is divisible into a making and a selling department, into the duties respectively of what we will call a Works office

and General office, the financial part of clerks' work being done in the latter.

In the Works office each day orders will be received, and there entered from the postal memorandum, with a number or other indication, in the order-book, and afterwards, in the form of "working-orders," from dissecting-book with "progressive" numbers ("job tickets"), will be distributed among the foremen concerned. A counterpart of each will be left in the book for reference. Whatever is incidental to the order other than its financial aspects will be seen to here, and so correspondence affecting the workmanship, complaints as to delay in execution, etc. Following entry of the order in the general order-book, use may be made of another book showing the order in which the respective processes have to be performed; for instance, if it be cast iron ordered, one column will show moulding (founder); the next, turning; after that milling; and so on. When finished the order will come back to this office to be ticked off as such.

An official will act as intermediary between the different foremen, from whom he will receive and to whom he will pass the material. The work in its successive stages comes before a reviewer to be passed or rejected. When finished it goes to the stockroom, to be delivered thence to the packer for despatch, and an entry of this is made in the forwarding-book, and despatch is advised to the customer.

A clerk in the general department will then enter it in the day-book, and it will be invoiced from there. From these two books entries in the books of account are made up. In the financial department correspondence will be done relating to payments; a young clerk may here learn the framing of cost accounts (chap. x.); and to this office will be entrusted the duties connected with pay-day.

Cost of production represents a sacrifice in various particulars on the part of the producer. This "prime cost" represents expense of raw material and of what is done to it, with a percentage of fixed expenses added, together with the employer's own remuneration for management. Of these, the wages of

labour and profits of capital are Mill's "universal elements." By *real* cost of production theorists mean all the labour required in the production of a particular thing, besides the sacrifices in saving on the part of the producer; whilst the "expenses of production" or "supply price" are the sums of money paid for such labour and sacrifices. Marshall keeps these distinct; whilst Mill used the term "cost of production" to express both ideas. The different items under expenses of production Marshall would call "factors of production," used by other writers to designate Land, Labour, and Capital.

Let us look now at the workpeople as part of the organism. The man intending to engage in an industry will have to consider the quality of his employees; to what extent he will engage female and child labour as well as male labour. And here it will be convenient for the teacher to introduce that important subject, the remuneration of labour in general—the economic theory of Wages. The different scale of earnings of common labourers and of skilled workmen, as also of that in one employment from that in another; the question of "living wage"; circumstances governing supply of skilled and unskilled workers; effect of the employment of women; of invention reducing amount of labour needed; of the importation of products of foreign cheap labour; of rise of wages in one trade on those in other trades; considerations which affect the reduction of hours of labour; trades-unions, strikes, lock-outs; arbitration and conciliation; causes of the general rise of wages since the sixties;—such are the chief aspects of this topic, which must be studied in turn.

In connection with wages, some notice must be given to methods of time-keeping—the registration of attendance of the workmen, which at appointed times of each day must be checked on boards for the purpose. Every man may have a number assigned to him by which he is known throughout. Accounts have of course to be kept for time and wages. A quarter of an hour lost through unpunctuality by an employee will tell against his wages. Every *day* worker may have a

slate bearing his number, on which to write his time—details of time worked on various orders, and total time worked; this he will hand, before leaving, to the foreman of the shop or section in which he works. The general time-slate will be made up from the check-boards and the overtime sheets. Next comes the time-book, which is written up from above slates; from it is made up the time cost-sheet, each man's work upon a particular order being finally carried into the cost-book, which will guide the invoice clerk. Each *piece* worker may have a memorandum-book supplied to him, in which he will be credited with the various piecework jobs, and debited with time paid on account of the particular job and of any "wasters," that is, work condemned by the viewer, which has to be done over again, thus entailing a further review. Each process must be tested and the work passed. Money paid to a preceding worker on what has become useless is debited to the defaulter. Instead of check-boards there are "time-recorders," such as the *Rochester* and the *Bundy*, which provide "an indisputable record of every man's time."

Productive *Co-operation* has made but little progress in this country. Technical education provides instruction only in industrial processes, not at all for the organisation of business, of which workmen are naturally ignorant. So far as Co-operation is realised, it tends to do away with strikes; and it raises the workman's character by making his reward depend strictly on his own exertions; he becomes more frugal.

Industrial partnership is characterised by participation of the operatives in the profits. The employer, through his accountant, will first, after payment of wages and salaries, reserve a percentage of interest on his capital; will then write off bad debts, and allow a percentage for depreciation; and finally distribute the residue between himself and employees, who will receive in proportion to the wages and salaries earned by each. Any amount credited to a piecework man, as above mentioned, is of the nature of a "bonus." But the idea of industrial partnership comes to be impracticable wherever the number of participants is large, as the share of each will be

infinitesimal, which the late William Morris showed for his own business.

Clerical salaries are wages largely settled by custom. That of Government as employer is different from the usage of trade. In most cases, however, salaries to some extent depend on intellectual attainment. In purely mechanical work there is very elastic competition; hence low scale of remuneration.

The course of clerical work previously outlined is that obtaining in an establishment in the Midlands with which the writer is conversant. We shall add for comparison a detailed description of the duties of a clerk in a textile factory on the Scottish Border, from information supplied by a former pupil.

"Apprenticeship here lasts for about four years, during which the respective salaries are given of £15, £20, £25, and £30.

"You begin by addressing envelopes for future use, by the score, and are then taught the proper way to manipulate the copying-press. It takes a little practice and care in order to copy a letter well, so as not to have it blotched and unreadable, or to leave the tissue paper torn or damaged. Then there is a right way, and any number of wrong ways, of folding a letter preparatory to putting it in its envelope. The inclosures (if any) should have careful attention.

"Twice a day you stamp the letters and enter them in the postage-book, and despatch the letter-bag to the post office by the messenger. The postage-book has also to be balanced every night.

"*Checking* the calculations of *the incoming invoices* follows. They have to be entered in the purchase sales day-book, docketed, and then handed to the manager, who will check the goods when they arrive. On being returned they are filed, each month by itself.

"Next comes the *invoicing of the outgoing goods*, the particulars of which are:—Piece numbers, length of pieces, pattern numbers, weight of pieces, width, and price per yard. If they happen to go to clothworkers in order to be shrunk, they must be advised to the shrinkers, giving above particulars minus prices. The goods have then to be "marked off" in the order-book as sent on such and such a date.

"Pay-day is once a fortnight. The names of the workers are

written afresh in the wages-book every month, but their names and numbers have to be written on ruled foolscap for every pay. Most of the day preceding the pay-day is given to the checking of the books handed into the office by the foremen of the respective departments. The individual wages are written on to the sheets already referred to, and when complete are transferred to the wages-book. On being checked, the fines for being late are noted on the sheets in red ink. The sheets are then cut up, and each page is put into little tin boxes. The next day one of the senior clerks and a junior go to the bank and draw the necessary cash. On your return it is distributed into the boxes, and paid out to the workers in course.

"Abstracting the wages will come next. Each department (there are about twenty) is charged with its share. The names of the departments are: Sorting, Scouring, Dyeing, Carding, Spinning, Winding, Warping, Power Loom Weaving, Hand Loom Weaving, Birling (clean and greasy), Darning, Milling, Finishing, Pressing, Yarn Store, Engineers, Purification.

"The goods bought have also to be abstracted and charged to departments in which they are used. Yarn bought and wool bought are the largest items. Dyestuffs run up a large total, as do coals. The coal account is paid monthly, and this is checked from the duplicates handed to the engine-man with each delivery. The Railway Company's account has also to be checked monthly. Every fortnight a list is made up showing the number of pieces which had been put in work, and the number on order but not started. The letters after being attended to are filed, and the cases when full are removed. The book-keeping is gradually explained.

"These and similar minor duties constitute the work during apprenticeship.

"When a young man is 'out of his time' he does some work with more responsibility attached. The orders when accepted are transmitted to the mill. Each order is given a consecutive number, and the various colours are numbered. You have to state the number of pieces wanted for each colour, length of pieces, width, weight per yard, and the date when delivery is wanted. All this requires care, because if a mistake occurs, the clerk is responsible. Then the order has to be acknowledged to the customer, and all particulars stated. In the order-books the prices are stated in cipher, with which of course you have to be familiar. Sometimes you have to acknowledge receipt of cheques, and see that everything in the remittance is in order, such as the discount, deductions for claims (damages in cloth), returned wrappers, and sometimes

interest for prepayment. You have also to check the calculations on bills which are drawn on customers. In the absence of the cashier the cash-books have to be kept up to date.

"Boys who intend entering an office such as this should pay particular attention to (1) Arithmetic—Interest (simple and compound), Decimals, Proportion, cwts., qrs., lbs., at so much per cwt., and so on. (2) English (spelling, punctuation, grammar). (3) Knowledge of French and German may be turned to account.

"An accountant firm who audited the books of this establishment complimented the book-keeper on his style. He has no book called a 'Journal,' but his scroll (rough) cash-book serves the purpose of one."

Next some account may be given of work done by young clerks engaged in the offices of a London varnish manufacturer. This they enter at sixteen or seventeen. Our correspondent writes:—

"A young fellow is first put to docketing letters, which he has to keep in a tidy state in pigeon-holes or files, as the case may be; he copies the outward correspondence into letter-books, and keeps these indexed up each day. He has also to enter orders every morning, and prepare the railway notes for consignments going by the various railways. He must attend to any callers, and take them to the manager. If the clerk after two or three years proves himself quick and efficient, he will perhaps be promoted to the position of empties clerk; he will give an eye to empties returned, and keep the credit-books, from which are made out the credit notes for such. With this work is combined the keeping of stamps and stamp-book, checking the tallies, van notes, railway notes, bills of lading, etc. Or he may be told to enter up journals, to keep the railway companies' carriage accounts, to make up contracts booked with various firms, or may attend to shipping (bills of lading, etc.). At this end of the office there are two invoice clerks who do nothing else. All the above work is divided among seven clerks; one is head of the department, who keeps the prices books and checks orders and colonial invoices.

"At the other end is the cash department, where the ledgers and cash book are kept, drafts made out, and everything done which concerns the financial part of the business.

"I entered the office at seventeen, from St. Paul's School, and was put straight on to the correspondence, because of my ability to write shorthand and do typewriting; this I have had to go on

with ever since. It is no blessing to know shorthand and typewriting; in nearly all offices you stay in a groove. I know of more than one young fellow who has professed ignorance of these subjects when really knowing them, and has got on all the better for it."

This may suffice to give the reader interested in the office-work of manufacturing establishments a fair idea of clerical duties. To return now to a preliminary course of study for the career of a possible principal in a manufacturing firm.

Industrial History will command attention as part of the study of Economic production. The more Industrial Geography is studied alongside of this the better; the one will throw light on the other. Buckle's *History of Civilisation* and the works of J. R. Green should be good instruments in the hands of a teacher here. The vicissitudes of Labour in England have played an important part in the social history of the country, and many present-day phenomena can be rightly understood only by aid of their history. We may investigate the cause of each, guided by the principle that man himself really changes little, so that, as Thucydides wrote: "Things which have happened already will come about again." History repeats itself. There is much to be said for the method of at first working backwards, recommended by Professor Prothero. In this department of study, again, one should start from particulars, not from generalisation.

Questions as to population, pauperism, legislation connected with the conditions of labour in factories and mines (*e.g.* employer's liability for injury caused to workmen by accident, or default of fellow-workers, regulated by the recent Workmen's Compensation Act, and the Miners' Eight Hours Bill now before Parliament), and everything which bears upon the relations between masters and their employees; all this deserves the attention of everyone in early life. History has instructive lessons to teach upon such burning questions as that of State interference with wages, and the economic consequence of different systems of poor relief.

LITERATURE

ELEMENTARY

Jevons, *Primer of Political Economy.* Chaps. iv.–ix.
Symes, *Political Economy.* Chaps. ii., vi., vii.
Whitfield, *Introduction.* Lessons iii., xiii., xviii., xix.
Edwards, *Commercial Law.* Chaps. xxvi., xxviii.
Gibbins, *Economics of Commerce.* Chap. xi.

GENERAL

Lewis, *Commercial Organisation of Factories.*
Marshall, *Elements (or, Principles).* Chapter on Business Organisation.
Walker, *Political Economy.* Chapter on Organisation of Industry.
,, *The Wages Question.*
Hadley, *Economics.* Chapter on Machinery.
The Engineering Magazine :—
"Cost-Keeping Methods in Machine Shop and Foundry." Vol. xiv.
"Effective System of Finding and Keeping Shop Costs." Vol. xv.
"Machine Shop Management in Europe and America (Commercial Organisation and Sales Management, etc.)." Vols. xvi., xvii.
"Organisation as a Factor of Output." Vol. xviii.
"Commercial Aspects of the Problem of New Processes." Vol. xviii.
"Commercial Organisation of the Machine Shop." Vol. xix.
Nicholson, *Effects of Machinery on Wages.*
Brassey, *Foreign Work and English Wages.*
Foxwell, *Irregularity of Employment and Fluctuation of Prices.*
Devine, *Economics.* Chaps. iv., viii., xiii., xiv.
Price, *Industrial Peace.*
Jevons, *The State in Relation to Labour.*
Board of Trade Report and Abstract of Labour Statistics.
,, ,, ,, on Changes in Wages and Hours of Labour.
,, ,, Abstract of Foreign Labour Statistics.
,, ,, Report on Strikes and Lock-outs.
,, ,, Trade-union Reports
,, ,, Reports on Emigration and Immigration; Employment of Women.
Cassell, *Industries of Great Britain.*
Bolles, *Industrial History of the United States.*
Cunningham, *Growth of English History and Commerce.*
Ashley, *Economic History and Theory.*
Toynbee, *The Industrial Revolution.*
Gibbins, *History of Industry in England.* Methuen.
Taylor, *Lesson Notes.* Nos. 92, 103.
Smiles, *Industrial Biography; Invention and Industry.*
Daily newspapers and trade journals—*Manchester Guardian, Leeds Mercury, Birmingham Daily Post,* etc.

CHAPTER VI

THE THEORY OF TRADE: ITS ORGANISATION AND PROMOTION

"In the city itself, how will they share with one another in the results of their labours? . . . Evidently, he replied, by selling and buying. We shall want a market, then."—PLATO.

OF quite primary importance for the purposes of commercial education must of course be the Exchange of commodities, the principles and incidents of which invite special attention in the next succeeding pages. Our desire is to suggest suitable treatment of this subject by teachers in the institutions which are in view in the present work.

By the aid of a series of examples, collected inductively by himself and his pupils, of exchange of commodities and of services in connection with it, the teacher may lead them up to a definition of TRADE. Definitions or explanations given by text-book writers may be used for comparison, as Lord Farrer's: All operations by which skill and labour and the products thereof are exchanged—the hiring of services, as well as the buying and selling of material wares; or Bagehot's: A set of persons working for the wants of others, and providing for their own wants through receipt of commodities in exchange from those others. With these should be compared the writer's own remarks in *Introduction to Commercial Science* (§ 43*a*). A teacher will of course bring out clearly that all Trade remains essentially Barter (cp. chap. ix.). In primitive life two persons met, each having what for him was superfluous, and each seeking what he lacked. From the first, use may be made of the history of culture or civilisation.

Through progressive civilisation, money in the form of bullion (chap. ix.) was used by the time of Abraham (Gen. xxii.); whilst by the time of Plato (*Republic*, bk. ii. § 371) Trade had become essentially what we now understand by it.

The moment one ventures to speak of a Theory of Trade (see introductory chapter), the "obstruction" of which Bagehot speaks makes itself felt acutely. Traders who are familiar with nothing but "rule of thumb," and oblivious of the process by which the guidance they possess has itself been rendered possible, will confront the teacher at every turn. He must be prepared to do battle for the cause which he represents; but the victory will ultimately lie with him if he use the right weapons. Any genuinely true Theory of Trade for which he will contend must be based on *systematised experience* of the past; such a position, whatever the battery used against it, will be unassailable. If a man say that Practice, by which of course he means his own, is better than Theory, you have but to convict him of talking nonsense. How, asks a living Italian writer, can present practice, which at the best is only a part of the whole, be better than the whole? Again, you may expect to meet objectors who rely on the changeableness of Trade for refusing to listen to the teaching of Theory (*ibid.*). Amongst the ranks of traders themselves, nevertheless, one finds writers, such as Mr. James Platt, combining success in business with knowledge of economic theory, who do not hesitate to aver that "commerce is guided by laws as invariable as those of health or gravitation." As far as there is any craze, it lies with those who will not see the light.

The teacher who has received no systematic instruction in economic theory will have recourse to the chapters on Exchange in such treatises as those named in the "Literature" appended to chapter iv. above. The succinct statement of the general theory by Professor Lexis in Schönberg's *Handbuch* would be found helpful by any able to avail themselves of a German exposition up-to-date. The present writer has already indicated in his manual first published in the year

1892, what he considers to be the desirable treatment of this subject in the highest forms of the commercial divisions of secondary schools (see "Literature" below).

The species of exchange of commodities will be discriminated, according to volume, as Wholesale (with which Economics specially concerns itself) and Retail; and with reference to geographical range—having regard only to wholesale—into Domestic (or Home) and Foreign (or International) trade; the latter description being further divisible into General and Specific, into Active (which British is characteristically) and Passive. It is foreign trade which is always meant by "Commerce" when used in Acts of Parliament.

Then will come the classification of traders themselves. We shall have merchants and tradesmen, according to a distinction maintained in England itself; in Scotland all dealers, wholesale or retail, being described as "merchants"; whilst in the United States general merchants or dealers often go by the name of "jobbers," which in the old country is reserved for the terminology of the Stock Exchange (chap. ix.) and for livery-stablemen. At London the "warehousemen" in the Manchester and Nottingham and the Birmingham or Sheffield trades—intermediate ("middlemen") between the textile or hardware manufacturers and drapers, ironmongers, etc.—must be distinguished from persons with the same designation at Liverpool engaged in transport industry (chap. vii.). Next arise distinctions between traders according as they act for themselves or for others: "commission agents" (who play an important part in present international competition, and so far as they also act for themselves are called "commission merchants"), "factors," "brokers." Reference may be made to the pupils' manual already referred to for the respective functions of these traders.

This may be a convenient point in our investigation for introducing the organisation of a Commercial Office, and for giving some account of the sort of routine to which employees in such must accustom themselves.

As was done in the chapter devoted to industrial pursuits,

we will suppose that our trader has selected a calling for which he has taste and aptitude, and also capital, if not also a ready-made "connexion" (cf. chap. xii.). Localisation, again, has to be considered. The commercial principal must think of the description and number of the helpers that he will require, and arrange his staff accordingly. There will be in a fully developed *establishment* "the *headmen*, who transmit his orders, or give them to his *corresponding clerks;* his *book-keeping clerks*, who keep what we will call his 'memory'" (Bagehot). It will be necessary for the whole office to work in strict order, and effect must be given as far as means allow to the principle of division of labour; but as time goes on it may be advisable to revise the arrangements first made, if a better distribution of functions amongst the various clerks suggests itself. It is usual, for obvious reasons, to assign quite distinct duties to book-keeper and cashier. The latter will be responsible for the Cash Book, Bank Book, Bills Payable and Bills Receivable Books (chap. ix.). Besides the various Ledgers and Account Current Book entrusted to the book-keeper or to a "ledger clerk," a General Merchant, Commission Merchant, etc., will need a Contract Book, a Stock or Warehouse Book, an Account Sales Book, an Invoice Book, Letter Book, etc. (see further in chap. x.).

If the principal take a partner there will be the following points for them to consider: (1) preparation of the contract of partnership under legal advice; (2) amount of capital brought in by each partner; (3) share to be taken or borne by each of profit and loss; (4) allowance to each of drawings during each year; (5) prohibition against engaging in other business than that of the firm; (6) interest to be allowed on each partner's capital; (7) duration of the partnership.

The firm, whether sole or partnership, will issue a circular stating generally what business is intended to be done, mention being made of the possession of ample means, and a reference will be given at foot to a bank with which the business is to be connected (see further in *Introduction to Commercial Science*, §§ 32–40).

Marketable property is divisible into Real (or immovable)

and Personal (or movable); it is with the latter alone that we are here concerned. A merchant's operations are those concerned with buying and selling, so that it is necessary to investigate the incidents of contracts of sale and purchase. Except among the most backward races (above) a bargain is now between buyer and seller.

Transactions of this kind admit of economic analysis on the one hand, and of juridical analysis on the other; and the one point of view will often illustrate the other. Indeed, rules of Commercial Law, especially those which have been enacted by statute since the appearance of Adam Smith's celebrated work, are based more or less on economic principles, are designed to give effect to them. Take, for instance, the rule as to the vesting of the Ownership of a thing sold and the incidence of Risk, which alike devolve upon the purchaser from the moment that the bargain is struck, so that the seller, in the absence of any contrary arrangement, can enforce that freely. If the rule were otherwise, there would be much less commercial activity; as it is, freedom of transfer is promoted. This has been the policy of our law for several centuries.

The difference in wholesale transactions between sales of goods on the *spot* and those of goods *to arrive*, between sales *by sample* and those *by type*, will soon come before the student in practice. Science has to consider the economic effect of the development of business in "futures." Professor Marshall remarks that "the chief cause of the modern prosperity of new countries lies in the markets that the old world offers for promises to deliver goods at a distant date." *Options* represent the unhealthy side of speculation (chap. iv.): it is not for the higher interests of Trade that schoolboys in the New World speculate in petroleum certificates (cp. chap. xii.). Congress has had to move in the matter. "Bogus sales" work as cancer in business.

In the forefront of negotiation for an article is the question of **Price**; that is, its market value expressed in money. The theory of Value is one of the most important and yet most difficult in Economics. There are two chief aspects of Value:

(1) natural, permanent, or *cost* value; (2) *market*, or temporary value. The utility of the thing supplies the fundamental element in the conception; and with this is associated the idea of scarcity, as the etymology of the word *dearth* would suggest. The value of ordinary commodities, which admit of indefinite increase by application of labour and capital, is determined chiefly by the cost of production, which depends on the average rate of wages and the rate of profit current in the line of business concerned with the supply of the particular article. The *market* price of the article is that which expresses the relation between the Demand for it and the Supply of it in the wholesale market; this also materially affecting the natural value of commodities, the supply of which is limited either naturally or artificially. Cost of production is, of course, only one aspect of the difficulty of attainment.

The reader will remember the difference which arises, with respect to the conditions of supply, between *agricultural* and *mining* produce on the one hand, and *manufactured* articles on the other; the laws, that is, of Increasing and Diminishing returns respectively.

With regard to manufactured articles, in particular, the use made by theorists of the idea of cost of production exemplifies the need there is for those who make the things and those who dogmatise about such to arrive at a better understanding with one another: the writer has never met with any manufacturer who unreservedly accepts the classical doctrine. It is the connection between Wages and Price which is denied: the tendency to equivalence of prices and that to equivalence of wages are not in the same ratio. Nevertheless, it is a question of the force of *sentiment* as against the prevalence of *free competition*, which is an ideal ever present to the mind of the theorist.

This much is certain, that when we reach the dealer we find that his idea is to charge the goods according to cost; and at public sales it is the cost which fixes the average proceeds.

The value of goods bought from abroad, however, is regulated not by the cost at which they were produced, but

by the cost of producing the articles here which are exported in exchange for them. Thus a foreign product like Tea does not fetch a price proportioned to the number of labourers in Assam, Ceylon, etc., who produced it, but to the number of our countrymen who made the Manchester goods given to produce the precious metal sent to those regions in payment for the tea (see Mill's excellent chapter on this subject).

Prices of some articles fluctuate much more than do those of others: agricultural produce (as Wheat) and Iron exhibit great fluctuations, which primarily arises from the uncertainty attending supply. The various causes of fluctuation in general would be found very helpfully stated in Professor Foxwell's pamphlet (see "Literature"). The use of "index numbers" in statistics will require explanation. By an "index number" is meant a figure, say 100, which measures a change in the value of money (chap. ix.), and is used to express the purchasing power of money for the particular period taken, which is calculated according to absolute prices: if these have fallen, the result is 100, 102, etc., but if they have risen, 99, 98, etc. The ratios between the old and the new prices are generally expressed as percentages. The object is to secure an unvarying standard of value. The method has been adopted by Jevons, and is used for the annual comparative statement of prices which appears in the *Economist* (see "Literature"): twenty-two staple articles are there taken, the figures representing which are added together, and the sum divided by 22, which shows at how much above or below 100 the average comes out; that is, what the general rise or general fall is respectively. As observed in a previous chapter, Statistical Science is one needing special study. Professor Bastable has to condemn the use which has been made of statistics in a recent book on international trade competition. Tables of prices, in particular, may be interpreted very differently by men who cultivate Science and those who are engaged in actual business without knowledge of Theory.

The effect produced on prices by Credit will fall within the scope of a later chapter.

The influence of Speculation on prices calls for careful consideration. Fluctuations are checked by speculative dealings. An able writer on the Theory of Business, who describes himself as a "City man," has observed: "When stocks of cotton or corn are bought at low prices, held and sold later in the season at higher, dealers have been keeping demand down to what is requisite to make the existing supply last till a new one is ready; and in purchasing in one locality and selling at a profit in another they have withdrawn commodities from where they are comparatively little wanted, and furnished them where comparatively much wanted. Judicious speculative operations in materials and corn are highly beneficial to society." There is, however, another side to this, as the same writer goes on to remark: "Should operators suffer by their transactions, through their estimate of the future of the market not coming true, they bear the penalty of having put the community unnecessarily on short commons." Compare the remarks of Professor Foxwell, who finds in speculation not only a levelling but a disturbing effect (pp. 58–64). This subject may be pursued in Professor Hadley's work, written in a country where speculation has reached enormous proportions. The effect of "corners" and "rings" (see "Literature") must be noted; and this will introduce the question of Monopoly.

It has been said by a leading writer that, to act prudently, monopoly price should be fixed with reference to the elasticity of demand, and not only with reference to the immediate maximum revenue to be earned; but it would seem that this elasticity of demand could only be ascertained by raising the price until the demand is found sensibly to diminish.

The trade object of "Trusts" (chap. iv.) is to restrict competition, to control supply, and prevent elasticity in prices. Nevertheless, a country like ours depends on low prices as compensation for opening its markets to the world.

In teaching, under the head of "Price," we would recommend for elementary work the taking of some particular commodity and tracing its circulation from the first producer

until it reaches the consumer. We may suppose it to be an article of clothing, and a textile fabric: the instructor would start with the price at which it might leave the hands of the grower of the raw material, let us say, 4*d.*; he might put the price for which the dealer in that would part with it in turn at 5*d.*; that charged by the next intermediary, the spinner, at 8*d.*; the manufacturer then passing it on at 9*d.* to the dealer in the made-up product, the warehouseman, who takes 10*d.* for it from the tradesman (shopkeeper). We here reach the end of its wholesale history, and shall take it up lower down when speaking of Retail. There are other points first requiring notice.

Exchanges provide a meeting-place for those constituting the local "market," who have there communication in every direction with the general market, Supply and Demand being brought together, and competition exhibited with the slightest possible check. A set of buyers and a set of sellers are thus pitted against each other, who are experts in a particular line, and intimately acquainted with the varying conditions of Demand and Supply which rule from time to time for certain merchandise, whose bargains are matter of common knowledge, and not kept private. It is the "brokers" who organise the respective markets. They conduct the public sales under instructions from "commission agents" receiving *consignments.* Modern developments, such as telegraphic and telephonic communication, have imparted features to market operations previously unknown—the rapidity, and consequently the volume, of transactions now possible every day.

From the way in which Adam Smith expresses himself, he seems to have conceived markets as being mere aggregates of buyers and sellers, without any necessary organic connection, such as is now recognised as indispensable.

It will be easy thus for even a young pupil to understand that, with an approximately perfect market, there cannot now be two wholesale prices for the same kind and quantity of produce at the same time; for example, one in London, another in Hamburg, for the same descriptions of sugar: there

is one price, called by Marshall the "true equilibrium price." There must be **free competition**; the struggle between sellers and buyers will not be one-sided, otherwise there might be ground, as under monopoly, for calling the price "extortionate," which is inadmissible under the above-named conditions.

The incidents of Public Sales have been set forth in the pupils' manual, and the forms of documents used—such as bought notes, sold notes, prompt notes, dock warrants, delivery orders—explained. Some of the forms themselves are reproduced in other books named below. The present writer's Lesson XXII. affords an insight into Market Reports.

Hitherto we have spoken of Trade mainly, without reference to the distinction between Home Trade and Commerce, but will now consider some of the characteristics of Foreign (including Colonial) Trade, merely touched upon above when dealing with the theory of Price.

The teacher may begin instruction in this by reference to the object-lesson which a British breakfast-table affords for that international division of labour or exchange of services upon which our own country has to depend. The diversities in the natural resources and industrial capabilities of countries render them thus dependent on each other. What is true of food, a young pupil would see, applies likewise to clothing. One has, then, to inquire, What exactly regulates the interchange of products between the nations? Mill answers this question clearly and skilfully in his chapters on "International Values." It is not, as might at first seem, reducible to absolute necessity. It may sometimes pay the people of one country to import from abroad what can be produced even more cheaply at home. Those articles in which *comparative* cost in one country is greatest will first be sought by it in exchange for articles the production of which cost it less. Then, in course of time, as traffic facilities (see next chapter) increase, other articles will be exchanged, according as any advantage whatever is to be derived from international traffic in them by either party concerned. The exchange in every

case is governed by "the strength of reciprocal demand," formulated by an "equation of international demand." It is precisely because it suits the French—to name our nearest neighbours—to take any British commodity in exchange for their silk goods, and because it suits the people of the United Kingdom to part with that commodity rather than ourselves to provide the silk goods, which we *could* produce, that the exchange between the two countries takes the form that it does; but it is essentially dependent on the extent to which each country demands the productions of the other. Whatever balance of disadvantage there is from exchange of one commodity is redressed through exchange of others. Thus the strong British demand for *foodstuffs*, which creates a balance "unfavourable" to this country (below), is covered by the strong French demand for *coal*, which creates for us a "favourable" balance.

The excess of Imports over Exports, characteristic of British foreign trade, which, from a misapprehension of its significance, used to be so dreaded by our ancestors, should be clearly explained as itself indicative of the financial strength, the commercial success of the country. Account must be taken of the following considerations in particular. Foreign capital, on the one hand, comes to Great Britain for investment, and profusion of British capital on the other makes this country an unusually extensive lender to others; that is, the British people have money invested all over the world, one may say, the interest upon which reaches us in the form of imported commodities. As one writer puts it, the exporting country pays more for what it takes from us than we do for what we take from them (relative intensity of demand): "if England can get the imports without exports, so much the better for herself." Again, as our Carrying Trade (next chapter) is so great, allowance must be made for freights earned by the owners of British vessels taking cargoes to foreign ports where those liable for such reside. Adam Smith already observed upon the lack of precision in custom-house statistics. Indeed, it is within the cognisance of every for-

warding or Customs clerk that the cost of transport is actually included in the valuation of incoming goods submitted at the British custom-house of the port of entry, whereas *loco* invoices (see chap. x.) of exports, which ground declaration of value at the same institution, are not expected to include cost of transport so far as the immediate purpose of the authority is concerned.

It is of course possible to explain excess of imports as evidence of *over-consumption*, as consumption of foreign products not replaced by our own; which would make it a question of *under-production* on the part of this country; and the element of interest on British investments abroad contained in it would then be suggestive of misdirected mobility of British capital.

One must avoid exaggeration of the difference in the incidents of home and foreign trade. The theorists' view of this undergoes modification as mobility of capital (chap. iv.) increases, which tends to affect cost of carriage (cp. Mill's "double cost") and to equalise prices. Year by year more British manufacturing firms start factories in the United States, France, Italy, etc., in addition to those they have at home, before Americans and Germans carry everything before them. And further, even in home trade, as another has said, there are return journeys to take into account; "every trader between factory and market has to see that his total outgoings are more than covered by his total incomings" (cp. Cairnes's proof that "non-competing groups" do not coincide with political groups).

As Mill observes, the only *direct* advantage of foreign trade lies in the power gained by any one country of consuming the goods which it imports. The *indirect* advantages he sets forth in book iii., chapter 17, § 5. Readers of the old *Spectator* will remember what Addison says of the service it renders to society as a whole: merchants "knit mankind together in a mutual intercourse of good offices" (No. lxix.).

The subject of Trade Policy will be taken in chapter viii., and that of Foreign Exchanges in chapter ix.

Besides the aid given at home by Government, through such agencies as the Commercial Intelligence Department of the Board of Trade, Wholesale Business is promoted by **Chambers of Commerce** maintained by Traders. Those of the British Empire act in unison, and have already held a Congress in the old country. Such institutions bear analogy to Government Departments, as, in particular, the Board of Trade, but are organised by local traders, and made subject to such rules as they themselves choose to frame. Like training to that indicated for work done at the Board of Trade should serve for the career of a young man in the offices of a Chamber. The raw clerk is put to copying, etc., as in merchants' offices, but he may quickly find scope for any talent. The more important Chambers foster imperial as well as merely local interests. When any trade is sufficiently strong in local number to warrant special representation, a section is formed for the maintenance of its special interest. The best men, experts themselves, are sought for special Committees of Inquiry or for advice. Aptitude for research on the part of the employees comes in. Those responsible frame reports; hence scope for skill in composition and précis-writing, besides knowledge of modern languages, economic geography, etc. The Chambers at London, Liverpool, etc., are in constant communication with Government Departments, seeking or supplying information; whilst they have to make representations in various quarters in behalf of interests which they are concerned to promote, or for the redress of grievances.

Another special agency already referred to, which operates abroad, is that of the **Consular Service**, under the direction, as regards most countries, of the Foreign Office. That of the United States, which is under the immediate control of the President for the time being, is perhaps the most efficient in the world, although American Consuls receive no special training, like those of some countries. The President "selects them from men in active life, and counts on their adaptability to carry them through in their new occupation." Mr. Yates, a

former President of the Birmingham Chamber of Commerce, points out that an American Consul has a keen eye and no harassing conditions; that he is enthusiastic and takes trouble in his work. "He sticks to his men and bombards them with shrewd questions until he gets what he wants; and then he sits down and writes his reports the same night. He catches the next mail, the news is published in Washington in two or three weeks, and it is circulated all over the United States in as short a time as would be taken by many of our Consuls in preparing the report."

Some information has been given in the introductory chapter as to European consular education, of which the Belgian is typical. The officers of some countries must all have graduated in law at some University.

Some notion will next be given of clerical work in mercantile houses. A correspondent contributes the following account of life in a Mincing Lane coffee merchant's office, in which he is employed:—

"A clerk will usually enter as a junior about sixteen years of age, and will be put to learn the elementary duties of an 'office boy'—that is to say, he will file the copies of letters sent out and endorse those that come in; will write the less important letters from an original of some superior clerk, and, of course, undertake the minor duties of press-copying and addressing the envelopes for outgoing letters, very frequently also seeing to their postage and 'send-off.'

"Besides these duties, if competent, he will be put to fill in the bills of lading (chap. vii.) and bonds for the custom-house (chap. viii.), and to enter the corresponding warrants into the warrant-book, with the buyer's name, the destination, the ports through which the goods will be shipped, and the boat by which they go. Added to all this, he will be required to do a great deal of messenger work, provided that the firm do not employ a commissionaire, such as the delivery of local letters, frequent visits to the custom-house, and also to the wharves to secure samples of coffee in bond (*ibid.*) for purchasing purposes, chiefly to be sent abroad with quotation of present price. There are many other small uses to which he is liable to be put: as the packing of samples and their despatch.

"On promotion he would probably be given Book-keeping work, which comprises a large area in a big firm. This includes making up the day-book, cash-book, purchase-book, and the extraction of entries in these for the ledger and accounts current (chap. x.). In addition he will probably make out invoices (*ibid.*), usually on 'landing weights' received from the wharf authorities, which require working out on the *kilo* system to the currency of whichever country the consignee happens to be in. There are invoice-books kept for this purpose, which, when checked, are copied out on the firm's invoice forms, 'at sight' or 'three months' bills being made out for the gross amount and duly entered in the bill-book. A due-bill diary is kept, and in it bills are marked off when disposed of.

"The next step of promotion would be to cashier; but for this it is necessary to have been a long time in the firm's employ, and to have a very good all-round knowledge of the business.

"The other department—that of the judging of coffee and buying and selling at the sale-room—is a different branch, and entails years of experience as to the size, colour, smell, etc., of the coffee-bean.

"Respecting the qualifications of a clerk in the London coffee trade, it is a very great advantage to possess a good knowledge of commercial German and French for the translation and writing of letters. The counterpart of outgoing invoices is usually made out in German also; it is necessary to have an elementary knowledge of that language to do so at all."

The next communication is from a clerk in a London timber agent's office, who writes:—

"The easiest of your questions to answer is, What are the most useful school acquirements for my business? They are: (1) Shorthand, (2) German (besides Swedish), (3) Figures, (4) French.

"*Shorthand.*—When I applied for a situation, after leaving the City of London School, at the first interview they tested my shorthand whether I could transcribe it. They knew that pace would come with practice, and so it did. For the first three months I wrote letters, and this gave me an insight into their business in an easy and natural way. I believe from experience that to learn to transcribe one's notes into longhand is easiest done by reading printed shorthand.

"*Figures.*—Decimals and fractions are the most useful to me,

but the thing above all is to train a young fellow to check every calculation by doing it in two different ways before setting it down. Thus, for 6 per cent. on £125:—

5 % on £125 = £6 5*s.*	£125
1 % on £125 = £1 5*s.*	6
£7 10*s.*	£7.50
	20
	10.00.

I was not taught this at school, but was driven to it after I began business.

"A young fellow's first work usually is to index the letter-books, to docket the incoming letters and put them away, to check invoices made up by the other clerks, to copy by hand or to typewrite extracts of letters. This naturally indicates that one of his first qualifications is to be able to copy accurately. To show the importance of this: The buyer writes to us that he wants 1,000 cubic feet of $\frac{1}{2}'' \times 6''$ wood. From his letter I copy $\frac{1}{4} \times 6$, and send it so to the seller. Three months after, $\frac{1}{4} \times 6$ wood is shipped from Stockholm to London, and the buyer claims £20 or so for the error, or refuses the parcel, all due to the error in copying."

Let us pass on to **Retail** business, with which ordinary readers are more familiar, retail tradesmen being those in immediate touch with the public.

A shop, it has been well said, is "the front of a complex mechanism"; the parts which lie behind have for the most part been detailed in the preceding exposition, but something further will follow, which for the present must remain in abeyance, when we reach chapter ix.

The very familiarity which attaches to "shopping" tends to "breed contempt" with this side of Trade; and the sooner young pupils are cured of incipient depreciation of "tradespeople" the better. Tradesmen are practically necessary to all classes of the community, and therefore are entitled *primâ facie* to esteem for the aid which they render. They select goods with judgment, buy such on the best terms, stock and

sell them in small quantities in such a way as to suit the means and needs of customers.

We left the article of clothing at the point at which it reached the Retailer. We may suppose now that, after paying 10*d.* for it, he will require 1*s.* for it from the consumer, the final increment representing the tradesman's profit.

An article of food may be treated in like manner by tracing its history from, for example, the farmer who deals with the corn factor, in touch with the miller, to the dealer in flour from whom the baker draws his supplies, which he converts into bread, sold over the counter or otherwise to his customers. The baker will afford illustration of the way in which industry and trade may be combined by manufacturing tradesmen.

Under a system of discounts taken and given, care must be taken by a tradesman in his calculation of nett price, so as not really to lose.

The great expansion of Retail trade at the present day appears in the establishments of those calling themselves Universal Providers, whose operations tend to shut out the small tradesman: he is the analogue of the hand-loom weaver.

Commercial **Co-operation** is illustrated by the Civil Service Supply Association and like establishments, such as the Co-operative "Stores," spread all over the country.

The system of allowing to employees a bonus proportioned to the amount of their fixed remuneration obtains in some leading mercantile houses. The Reports on the Employment of Women show also its application to some extent in shops.

Some large concerns combine Wholesale with Retail.

Some three or four years ago a movement began within the ranks of tradesmen for the organisation of "Chambers of Trade," which should render the service to Retailers which is expected by the Wholesale Dealers from Chambers of Commerce. About ninety combinations of this kind have already been formed.

Interference of the State with the hours of labour in shops now forms the subject of inquiry by a Select Committee of the House of Lords. It seems that sometimes more than eighty-

four hours a week under non-restriction may have to be given by assistants, which is thirty more than the limit under the Factory Acts.

The writer may refer to his *Introduction to Commercial Science* for lessons bearing on Mercantile Law, as showing what he conceives to be the range of elementary instruction desirable in that branch of Commercial Education. The first lesson deals with the framework of Commercial Law; the fourth with the general Law of Contract; the sixth touches on Contractual Capacity; the seventh, on Agency, etc. Some other portions of that manual connect themselves with later chapters here. Private International Law will come in when dealing with the Law of Contract. Sufficient knowledge for the equipment of a teacher in secondary schools and for everyday requirements may be obtained from Mr. Edwards's manual in Methuen's series.

The combined study of Commercial Geography and History must always possess very much more than a merely scientific interest for those engaging in trade. Mr. Keltie made some pregnant remarks on this in his lecture before the Institute of Bankers (1890). "We have seen how commercial supremacy has passed from one nation to another, and how closely associated this supremacy has been with exploring enterprise, which simply means the acquisition of a practical knowledge of the world's Geography. . . . By a study of the Past we may be able to look into the Future, and take such precautions beforehand that we may not share the fate of Spain and Portugal."

Is not the history of Trade, asks Léautey, the history of Civilisation? "Trade has always played a very great part in the world. . . . It fosters progress in all its forms; it is the vehicle of thought, the propagator of the beautiful, the good, and useful. Intimately linked with the history of Humanity, it admits lofty views of Morality and Philosophy, and will give to intending traders a just idea of the economic and social importance of the career for which they are destined." The same writer recommends—it is true, indeed, of all branches of

Commercial Education—that this study, before being treated analytically, should be presented in the form of a summary: "pupils very reasonably feel the need of knowing whither you lead them, and the bearings of the instruction which they receive."

Contemporary trade movement should, of course, be closely watched, by the aid of literary means of information. We in Great Britain need to be vigilant with regard to the methods employed by our rivals. Steps taken by the Germans for developing their foreign trade (cf. chap. iv.) will serve as example. A steamer is equipped as an Exhibition; representatives knowing the language of the country go ashore with samples and with catalogues in that language; then they report the result to headquarters; their work is followed up by travellers sent out who are fluent in the language, humour the natives, and give long credit. In this way they distance their own Yankee rivals in South America. "Every marked epoch in any branch of Commerce," wrote Mr. James Platt, twenty-five years ago, "reveals some few individuals departing from the beaten track, perceiving the altered conditions of society, and introducing fresh arrangements."

For Pupils:— LITERATURE.

Jevons, *Primer of Political Economy.* Chap. xi.
Symes, *Political Economy.* Chaps. viii., xiii.
Whitfield, *Introduction to Commercial Science.* Lessons i., ii., vii.-ix., xx.-xxii., xxvii.
Gibbins, *Economics of Commerce.* Chaps. ii., iii., v., vi.
,, *History of the Commerce of Europe; British Commerce and Colonies.*
Edwards, *Commercial Law.*
Sutherland, *Manual of Commercial Instruction:* "Cost Book and Price List." Chap. xxvii.
Chisholm, *Handbook of Commercial Geography.*
Zehden, *Commercial Geography.* English edition by Muirhead.
Lyde, *Man and his Markets.*
,, *Commercial Geography of the British Empire.* Methuen.
Green, *Short Geography of the British Isles.*
Herbertson, *Geography of Britain.*
Mill, *Atlas of Commercial Geography.*
Langhans, *Kleiner Handelsatlas.*

For Teachers and others:—

Wilson, *Resources of Modern Countries.*
Taylor, *Lesson Notes* (Nos. 82–4).
Tylor, *Primitive Culture.*
Buckle, *History of Civilisation.*
Seeley, *The Expansion of England.*
Bourne, *English Merchants.*
Bolles, *Industrial History of the United States*, pp. 850 ff.
Annual Statement of the Trade of the United Kingdom.
Annual Statement of the Commercial Relations of the United States with Foreign Countries.
Board of Trade Journal (weekly).
The (London) *Chamber of Commerce Journal* (monthly).
Sell's Commercial Intelligence and *New York 'Bradstreet'* (both weekly).
Daily newspapers: *Liverpool Daily Post, Glasgow Daily Herald*, etc.
Jones, *Guide to Professions:* "The Cotton Trade," pp. 115–18.
Nicholson, *Principles of Political Economy.* Volume on "Exchange."
Devine, *Economics.* Chaps. ix. and x.
Schönberg, *Handbuch, u.s.w., iiter Band.*
Lexis, *Der Handel.*
Cohn, *Nationalökonomie des Handels, u.s.w.*
Hadley, *Economics.* Chapter on "Speculation."
Smith, *Commercial Gambling.*
Hemelryk, *Les Avantages du Terme dans le Marché Cotonnier.*
Mill, *Political Economy.* Chapters on "International Trade" and "International Values."
Bastable, *The Theory of International Trade.*
Sonndorfer, *Der Weltverkehr.*
Rothschild, *Taschenbuch für Kaufleute.*
Merten, *Manuel de Sciences Commerciales.*
Farrer, *The State in its Relation to Trade.* Chaps. v. and viii.
Traill, *Central Government.* Chaps. vi., viii., x.
Joel, *A Consul's Manual.*
Prothero, *Consular Documents.*
Späing, *Französisches und Englisches Handelsrecht im Anschluss an das allgemeine Deutsche Handelsgesetzbuch.*

CHAPTER VII

ECONOMICS AND MECHANISM OF TRANSPORT

> "There methinks would be enjoyment more than in this march of mind,
> In the steamship, in the railway, in the thoughts that shake mankind."
> *Locksley Hall.*

THE first thing that one needs to apprehend with regard to Transport is the vast importance which it possesses as the handmaid of Industry on the one hand and of Trade on the other. Partaking of the characteristics of each, it is commonly described by men of business as the "Carrying Trade," and the goods conveyed are largely spoken of as "traffic"—a word taken over from Trade.

All these three departments of economic life have undergone a "revolution" within the space of a hundred years. The great change, the incidents of which we are about to consider, intervened between the others, as resulting naturally from that which first came about.

The choice of trade routes for mankind first lay between *tracks*, which they themselves made, and *rivers*, which Nature supplied, both land and fresh water being thus used whenever these more or less freely afforded access from one quarter to another of a particular region. As communication increased, men "would go down to the sea in ships," would "do business in great waters," for voyages made very much within sight of land, when such seemed to render travelling easier from geographical or social causes. Tracks would gradually be given up for *roads*, especially as constructed originally for warlike purposes (highways). At the junction

of two or more navigable rivers would, we know, spring up towns, and the utility of rivers would be increased through joining them by artificial waterways called *canals*. Then, after a long interval, the Mariner's Compass gave traders command of the deep sea, rendering ocean voyages possible; which was a revolution in itself, and marks very much the beginning of the transition from mediæval to modern times. When Buonaparte was at the zenith of his power, steam propulsion was being applied in inland navigation; and soon after that the Atlantic was first traversed by a steamship, and the victor of Waterloo was able to take a, for that time, rapid journey by railway behind an "iron horse." The Victorian age has seen immense development of railway traction on the one hand, and of the capabilities of "ocean greyhounds" on the other. It is Trade, as our poet Cowper wrote, that has compassed the world with a golden girdle.

Attention has therefore to be given specially to railway and steamship transit; but the teacher will have also to deal with postal and telegraphic communication annexed or allied to the two leading forms of Transport.

The Contract of Carriage, according to the English Common Law, is one of the class of "bailments," so called, which have been explained by the writer in his manual for pupils, where will be found a summary of the chief rights and liabilities of common carriers by land. Carriage by sea is governed by the Law of Shipping; and a body of Railway Law, characteristically statutory, has sprung up within the last thirty years, by which, amongst other things, the liability at Common Law has undergone limitation.

Let us first consider the chief aspects of RAILWAY transit. Increasing importance is being attached to the study of railway problems, so potent is the influence upon economic interests of this means of communication in its developed form. In the United States, where many graduates enter the railway service and command high salaries, the University of Yale and the Wharton School at Philadelphia provide special courses in Railway Economics, and the London School of

Economics addresses itself to aiding British railway employees in the same way.

For a considerable time following even the railway mania of the forties, Parliament suffered the companies owning the lines constructed in this country, as well as the canal companies, to pursue their career of competition without exercising any control over their operations; and there was no legislation on the subject until 1854. Cardwell's Act of that year for the first time attempted any State regulation, by subjecting railways and canals, between which competition had become ever more severe, to the jurisdiction of the ordinary Courts of Law; but the judicial machinery between that time and the year 1873 was found so ill-fitted for determining questions of "undue preference and reasonable facilities," that a special tribunal was created under the name of the "Railway Commission," administered by non-lawyers. As this body did not realise the expectations formed of it, Parliament, in the year 1888, "harked back" to a juridical authority; but now, happily, traders gained an improved status with relation to railway interests, as power was given to Chambers of Commerce to initiate complaints before the Commission. Effect was in the immediately succeeding years given to the intentions of the Act of 1888 by the Board of Trade holding a public inquiry, which led to a new classification of rates for goods traffic, and this was followed in 1894 by an Act limiting increase of rates to what is reasonable, thus meeting the claims of traders. The date of the last legislation is 1898.

International competition is closely connected with the question of *rates;* not only do foreign Governments give aid to their producers in this respect for the transit of merchandise coming to this country, which places our own farmers and others at a disadvantage, but British railway companies make the matter worse by carrying the foreign produce at preferential rates, the interests of shareholders conflicting with patriotism: the volume of foreign far exceeding that of home produce available for transit.

It will be seen that in this country the question as to the

State acquiring the ownership of railways, which has been discussed by writers on English Railway Economics, has not come "within the range of practical politics" (see Literature); to say no more, this would now require about £1,000,000,000 to purchase the country's railways. Those of the United States have all likewise been constructed with private capital and remain free from any control on the part of the Federal Government. Here combination and monopoly have been at work, although much enlightened policy has actuated the men, such as the Vanderbilts, prominent in railway management.

We find a different state of things amongst the countries of the European continent; the French and German systems being at present dissimilar. The system adopted in **Belgium** has most to say for itself: it exhibits State and private lines alongside of each other, the Government not operating to the disadvantage of the proprietary railways. In **Germany** four-fifths of the lines belong to the State, the policy of which is to absorb the rest. In **France** we find the State aiding railway enterprise in various ways, at one time by finding the capital, at another guaranteeing the interest on capital provided by private investors (cp. the system in British India), at another again, undertaking the construction and management of lines. The statesman whose name is most associated with recent French railway development is M. de Freycinet, whose policy led to taxation amounting for the year 1875 to £9,400,000, which by 1882 had reached £29,900,000. Although already in the year 1877 the Government had taken up ten of the lines, which were in a bad way, under the name of "*Chemins de Fer de l'Etat*," feverish speculation went on. According to a return issued a few years ago, of some three million shares in all, one-half, it appeared, were held by "small people." Whilst elsewhere investments in railway stock are sought by persons more or less affluent, in France it is favoured, like the State "*rentes*" (consols), by those comparatively poor. Under the existing system the lines are largely leased, or concessions granted, by Government, with a reversion to the State some fifty years hence. This system is peculiar to France.

The Russian Government makes all the railways within the dominions of the Czar. The same policy is pursued in the Dominion of Australia.

The general tendencies, then, outside the United Kingdom are that, whilst in the United States railways come under "combines" and in the direction of private monopoly, in other lands, as the German Empire, everything points to concentration in the hands of the Government, or to sole ownership by it. In this country the balance of opinion is strongly adverse to a disturbance of private ownership. It is felt these undertakings fare better under private than they would do under public management. Reference must be made to the Literature on the subject.

It is always thought that Railway Returns, constantly recorded in the newspapers, convey a trustworthy idea of the economic condition of a country.

One of the most noticeable results of the revolution of Transport is the influence which railways have exerted on Markets, by equalising prices. They have also to some extent transformed production—as, for instance, making India a wheat-producing country. It is owing to the lowering of railway rates, conjointly with reduction of Atlantic freights, that the United States can oust British growers from the market for wheat. The triumphs of railway enterprise have become commonplace, alike in the New World and on the continent specially identified with ancient civilisation and slow progress. It may not now be long before China itself is opened up in this way; and all in Great Britain await with interested expectancy the linking of South Africa with the Nile valley by engineers able to overcome the geographical difficulties of such a project.

Teachers of this subject should make themselves acquainted, and their pupils too, with the outlines of railway practice, beginning with commercial requirements, so as to understand the use of "consignment notes," "way bills," etc. (*Introduction to Commercial Science*, §199), as to which the books of Hooper and Graham, and also Pitman's *Manual of Business Training*,

will be found helpful. We shall here transcribe a memorandum communicated for the purpose by an official of long standing in the employment of the London and North Western Railway Company, which will take the reader behind the scenes so far as the commercial management of British railways is concerned. We believe that even America is still willing to learn from the system developed by the premier English line, which has become a model.

GOODS DEPARTMENT.

"A youth intended for a railway career would have to pass an examination of a comparatively simple character, and would, if successful, receive an appointment as apprentice or junior clerk. If at a small station, he would have a little of everything to do under the direct supervision and responsibility of the station-master, and when somewhat experienced would be sent to a larger station; but at large stations he would be attached to one of the sections, such as *Delivery* or *Shipping*, *Claims* or *Accounts*. In the first-named all inwards traffic for *delivery* to the public is dealt with, and he would probably be required to open and register letters, also invoices, take down dictated replies to correspondence and write out same; a good knowledge of shorthand is now almost a necessity. He will attach letters to any previous correspondence on the same subject; search out any information required in connection therewith under instructions from his superior, and make himself generally useful. His next step in this office would be to enter out on carters' sheets, or into other books, particulars from the invoices of traffic for delivery; deal with such correspondence as was not of sufficient importance for the chief clerk, or too important for the youth; record and take in correspondence all traffic received without invoices or charges; check the rates and calculations of all invoices that have been received, and mark off opposite the record of the waggons received the progressive registered number of the invoice for the traffic it contained, writing about any entries uncleared after this process is completed. He would require to attend to the public when traffic required delivery, and collect the charges due. It might also be necessary for him to attend to the weighing of loads of traffic, unless the apprentice was competent to do this. Sometimes these duties require two, three, or more clerks; but they all stand upon much the same level as regards position.

"The chief clerk attends to all matters of first importance in each branch, and supervises generally the work of the others.

"The *Shipping* section is concerned with outwards traffic. An apprentice would number the consignment notes received from the public, giving details of the traffic desired to be forwarded. He would also transfer particulars as far as possible on to the invoices, leaving the clerk next in superiority to him to *classify* the articles, obtain the correct rate from the books provided, and calculate the charges. The apprentice would take tissue-copies of these documents, which are then despatched with the traffic, to be dealt with at the Receiving Station, as detailed in *Delivery* section above.

"The chief clerk in this section would ascertain that the clerks were doing their work accurately, and supervise generally.

"The record of the waggons forwarded is also checked against the invoices, to see that no trucks have been sent away without such.

"The *Claims* section deals with all demands made by the public for compensation, and apprentices act under instructions from their superiors in obtaining particulars necessary to fully inquire into the cause for the *claim*.

"The *Accounts* office is usually filled by a superior staff of clerks drawn from all the sections, as it is necessary, in order to compile the various books, that the one who deals with them should be experienced. For example, a lad who had been in the Delivery or Shipping for twelve months would be very useful in copying to abstract forms certain particulars from the invoices, which are sent to the Chief Office to be checked monthly against similar returns sent from the corresponding station concerned. These abstracts form the basis of the station's balance monthly, and consequently great care is needed in their preparation.

"Youths are also engaged in writing letters from dictation, copying particulars in books of uncleared outstandings, posting on to bills amounts due from the public, and doing other things under direct supervision.

Promotion in this office soon follows marked talent. There are senior clerks, who mark off cash or credits received in other ways, with a chief to the section. Outstanding clerks, who deal with disputes by the public, of various grades, including a chief clerk. Collectors, who visit the traders to obtain accounts when the firms have credit accounts, and at the head of these a cashier.

"There will then be a Chief Clerk of the Station (embracing

all the sections), and over all a Goods Agent, who has, in all probability, passed through every stage from an *apprentice clerk*.

"A good knowledge of the Delivery and Shipping sections qualifies a clerk for advance by various steps to positions in the Accounts or the Collector's Department. It is in those two sections that a solid foundation is laid.

"The pay of a youth would commence at about £20 per annum, rising annually to about £50; then as junior to £70; as senior to £90; chief clerk to £120 or £140; and if able to obtain an Agency such as belongs to the station just described, £300 a year.

"There are, of course, positions of greater importance for which occasionally an Agent is selected, of £500, £600, or even higher salaries; but these are quite the exception.

"The chief and district offices also have youths who pass through the various stages, and are, if anything, better paid; but an experience at a station first is of untold value, and in no way prejudices the transfer to such an office afterwards—in fact, rather the reverse.

COACHING DEPARTMENT.

"There is much more scope in the Goods Department for youths than in a Booking or Parcels Office.

"The youths who are placed to Booking Office duties are sent to small stations where passenger traffic is not heavy, and are there trained; after which their services are utilised at a larger station, where they get still more experience and higher salaries, advancing from junior to senior or chief clerk, according to the importance of the duties they have to undertake.

"In the Parcels Office youths are employed in receiving and way-billing parcels to other stations, and in a grade higher entering out for delivery parcels received.

"The way bills are also abstracted in the same way as the goods invoices, and a junior clerk would be liable to perform this. A senior clerk would visit the traders to collect accounts and act as cashier in the office, while a chief clerk would look after the uncleared carriage charges and disputes, in addition to supervising the correspondence and office generally.

"The youths in booking or parcels offices commence at about £20 and rise to £50, then on to £70 or £80; senior clerks, £80 to £100; chief clerks, £100 to £150.

"From the promising Booking and Parcels clerks station-masters are appointed, more so than from Goods clerks, the Goods Agencies being open to these.

"There are three grades of station-masters—1st, 2nd, and 3rd. The salaries of the 1st class range from £200 to £300; of the 2nd, £100 and onwards: and all below £100 (some of the station-masters get only £70) are of the 3rd class.

"The ranks of railway employees are mainly recruited from pupils leaving the Elementary Schools."

CANALS, which do the work of rivers and serve to connect them, it is usually thought are more suitable than Railways for heavy traffic. In this country, where competition has gone on between them and the principal lines, most have by this time been acquired by their powerful dominating rivals. Legislation, it will have been seen, usually combines both in the same Act. These inland waterways render great service in France, which can boast of an excellent system; and great attention is being given by the Prussian Government to the development of those in North Germany.

Predictions made as to which of the European nations would chiefly use the Suez Canal have been singularly falsified. On every hand are we reminded of the dominance of Capital.

SHIPPING is, of course, an industry which has given Great Britain much of her commercial supremacy in the world, and it behoves our people to cherish its interests to the utmost for the maintenance of British dominion on the seas.

This branch of the present subject will come educationally before school pupils through lessons in Geography. They will soon learn about the action of Trade Winds and the like. Some, after constructing boats in English schoolboy fashion, may conceive a desire to engage in veritable shipbuilding; others, through family connections, will have in view the pursuit of shipbroking, or the work of the Marine Insurance broker, or perhaps a career as outdoor officer of the Customs, if not entrance to the Merchant Service or the Royal Navy, for here the range of choice is extensive.

A comparison of the aims of the chief nations—amongst which must now be reckoned that island empire in the Far East so prominent in matters of Commercial Education

(Introduction)—will provide instructive study for teachers and pupils alike: the system of subsidising fleets of steamships, to which European Governments have recourse, in aid of the respective countries' commercial expansion, and the present concern of the people of the United States to develop their merchant shipping, cannot be neglected. The situation of the world's leading sea and river ports, their respective trade customs and specialities; the facilities which they possess in the way of docks, harbour, and warehouse arrangements, whether in respect of depth of water or low scale of port charges and harbour dues levied, and any circumstances determining their relative advantage or disadvantage for the development of the country's foreign trade, will claim careful treatment, based on the latest information. A subject much discussed now is the supposed "decay of the port of London," which leads to criticism of charges of accommodation, of the imperfectly rapid handling of goods in discharging and despatch, as well as the number of cooks engaged with the soup. No less than fifty-four bodies are engaged in mismanagement of the port instead of one public authority. At the time of writing it is announced that Chicago will be brought into direct communication by sea with Europe during this spring with the opening of navigation in the St. Lawrence River, by way of the Welland Canal. It will then become an important port, at which vessels of all nations will call.

The writer has elsewhere sketched the incidents of the Contract of Affreightment, necessary acquaintance with which is common to those variously engaged in branches of mercantile work, and which comprises the use made of Charter Parties, Bills of Lading, Dock Warrants, etc.; and also the salient features of Consular duties, and, besides Shipping Law, the International rules as to the ships of neutrals in time of war. Some attention should also be given by students to the history of the Navigation Acts, repealed fifty years ago. In the next chapter something will be said about custom-house work. It is necessary to add the warning which is now frequently administered to this

country with respect to the continued maintenance of what are constantly proving prohibitive rates of freight, having regard to ever-increasing international competition. British steamship freights must be contracted if we are to hold our own, or the Trading and the Shipping "interest" are to work in harmony at home. When will Chambers of Shipping wake up and put an end to the absurdity of shipowners requiring 55*s.* per ton measurement for the carriage of British piece-goods to the East, whilst the similar American article goes through Liverpool at just half that rate? Not only so, but you may find that boats go from Antwerp or Rotterdam to the East Indies carrying bar-iron for 10*s.* per ton less than can be arranged with the owners of one at Liverpool. These things tell their own tale, as does also the system of "conference rates" which obtain in this country in favour of foreigners. Difficult as the problem of possible remedy may be, it needs the anxious consideration of students, at any rate, who have the national interests at heart. Atlantic freights have combined with American railroad charges to impair British corn growing. A newspaper reader might just now, in May, 1901, observe that wheat is being carried from New York to Liverpool for 1*d.* per bushel, to London at the rate of 1½*d.*

It is not enough that the equipment and arrangements of the chief steamship offices in London or Liverpool and Glasgow should be admirable, as they are. It is deplorable that in some of them not one of the native clerks is a practical "linguist" in the etymological sense of the word, notwithstanding that foreign languages, such as Spanish at Liverpool, are in such request. Earnestly do we hope that local traders will adequately support the arrangements for day classes in the second of these cities, to be held within the busy precincts of the Exchange. One of the leading steamship owners there has spoken to the present writer of the acquiescence of all his thirty clerks in the discharge of merely mechanical duties; but there is much reason for thinking that matters will improve little unless the principals counten-

ance in some practical way any stimulus that may be given to clerks by classes of this kind.

Some account of the contract of MARINE INSURANCE would be found in the manual intended for pupils (pp. 137, 207), where the "underwriter," different kinds of "policy," forms of "loss," "average," significance of "salvage," and of "ship's (captain's) protest" will come before the reader.

The following hints on clerical work have reached the writer from an employee of the Reliance Marine Insurance Office at Liverpool:—

"When a tyro enters a Marine Insurance office he is put to do an ordinary junior's work just as in any other office. He must not expect to learn very much about the special work as long as he is junior; it is only when he is put into one of the departments that he will really begin to learn. Marine Insurance is essentially a slow business. If the clerk is in a head office, he will find it extremely difficult to get moved about from one department to another. He should manage to be put to work which will bring him under the notice of the Underwriting Room: that is the goal of all who wish to succeed in Marine Insurance. There is a great gulf between it and the general office. I am inclined to think that he would have a better chance of learning more if he were in a branch office. There he would almost certainly go through all the departments, whereas in a head office he should have influence for promotion.

"Two very important qualities for Marine Insurance are good and rapid handwriting and quick figuring. The clerk has plenty of calculations to work out, no matter what department he is in.

"When a boy goes into palatial-looking offices he must not imagine he will have an easy time: he must be prepared for hard work and plenty of it. When he is a little older he must read hard, for Marine Insurance and Admiralty Law go hand in hand, and he must understand their connection. If a boy is content to remain a clerk, he would do well to go into some business in which clerks are paid better than in this."

As providing facilities for transport the POST OFFICE will have its lessons to convey; so also the TELEGRAPH (acquaintance with codes) and the TELEPHONE as means of communica-

tion. The National Telephone Company has embarked on a struggle of competition with the Government.

LITERATURE

For Pupils :—

Whitfield, *Introduction to Commercial Science.* Lessons x., xvi., xxiii.
Jackson, *Primer of Business.* Chap. viii. Methuen.
Lyde, *Man and his Markets:* "The Making of a City."
Edwards, *Commercial Law.* Chaps. xv., xvii., xxv.
Gambaro, *Lessons in Commerce.* Chaps. vii.-ix.
Pitman, *Business Training.*
Hooper and Graham, *Modern Business Methods.*

For Teachers and others :—

Findlay, *Work and Management of an English Railway.*
Acworth, *The Railways of England; The Railways of Scotland; The Railways and the Traders.*
Adams, *Railroads: Their Origin and Problems.*
Hadley, *Railroad Transportation; Railroads of America.*
Cohn, *Englische Eisenbahn Politik; Nationalökonomie des Handels und des Verkehrwesens.*
Jevons, *The State and the Railways.*
Farrer, *The State in its Relation to Trade.* Chaps. xi.-xiii.
Board of Trade: Railway Returns of the United Kingdom; Tramway Returns of the United Kingdom; Annual Statement of Shipping.
Abbott, *Law of Shipping.* Edited by Maclachlan.
Dorn, *Sie Seehäfen des Weltverkehrs.* Vienna.
Gow, *Marine Insurance.*
Hozier, Lecture on "The Machinery of Lloyd's." Barrett Street Series.
Jones, *Guide to Professions*, etc., pp. 109 ff.

CHAPTER VIII

ECONOMICS AND FRAMEWORK OF TAXATION

"Every tax is to the person who pays it a badge of liberty."
ADAM SMITH.

THE Fiscal arrangements of any State remind its subjects of the significance of their living in an organised society, and bring before them very forcibly the respective advantages and attendant responsibilities of the position. The subject of the expenses of government is one that will engage the attention of pupils instructed in Citizenship (chap. xii.); but from the great importance which belongs to it on the Commercial side of Education, especially as regards the higher work and the extent to which it concerns teachers, a special chapter is devoted to it. We shall here develop the treatment given to this topic in the pupils' manual.

There is a copious terminology with which the reader should make himself familiar; but the discrimination of terms such as "tax," "duty," "impost," "rate," will be somewhat difficult without historical inquiry. Some hints as to this will be found towards the beginning of Professor Seligman's volume of Essays.

We have to consider the subject under the two aspects of **Imperial** and **Local** taxation.

Under Imperial taxes come the Excise, Customs, Land Tax (strictly a "rate," yielding, at the rate of 1s. in the £, a sum of more than £25,000,000), Income Tax, Death Duties, and the "assessed taxes," such as Inhabited House Duty. As mentioned in an earlier chapter, the Treasury is the Govern-

ment Department entrusted with the raising of these taxes, the Inland Revenue being collected under Regulations made by one Board, and the duties upon articles of foreign trade by officers executing Regulations of the other, called the Board of Customs; but the whole is in the supreme charge of the Chancellor of the Exchequer for the time being, as "the head of the national counting-house—the housekeeper of the national household."

Under Local taxation fall the Poor, Borough, and County rates, besides charges affecting the supply of a necessary such as water, or optional use of gas. The department having administrative duties in this form of taxation, we may repeat, is the Local Government Board. Pupils are somewhat more familiar with these taxes, as they are collected more frequently than those required for Imperial uses.

One of the chief problems of taxation discussed by Economists is the question of **incidence.** The tax may be levied on a person who will not ultimately bear the burden of it. We have here the distinction between taxes classed as Direct and those which are called Indirect.

Direct taxes are exemplified by the Income Tax, and the "assessed taxes" actually borne by the person from whom the authority collects them. To these we may add taxes on contracts (as the familiar receipt stamp and stamped cheques) having any monetary value.

Indirect taxes, collected primarily from dealers, who recoup themselves by including the amount paid in the price charged to the consumer, appear in the duties on such things as tea and tobacco, and in the Property Tax, levied on the occupier of a house, etc., which he as tenant deducts from the rent paid to his landlord at the next settlement between them. Great Britain derives the chief part of her revenue from Indirect taxation.

A tax on Capital may affect Labour as well as borrowers, because if the accumulation of Capital is arrested its mobility will come into play; its transference abroad will send up the rate of Interest, besides diminishing demand for Labour;

whilst a tax on Labour in turn may affect Capital by diminishing supply of the former, mobility of Labour coming into play, seen in increased emigration of workers.

Every reader of the *Wealth of Nations* knows Adam Smith's four canons of taxation, which he borrowed from Turgot.

(1) The maxim of Equity or Equality: all should pay an equal proportion of their income. This principle guided the younger Pitt. It was grossly violated in Turgot's own country before the great Revolution, for the whole burden fell on the poor. A tax on tea, which all classes in this country consume, is an example of a duty highly equitable. The British Income Tax is theoretically based upon this maxim, but is, unfortunately, liable to criticism: it bears on a man's savings rather than his expenditure. Thus, if one young man wastes his inheritance, his Income Tax grows less in proportion to his prodigality, whereas another who is thrifty will find that yearly he has to pay more to the Revenue. This tax is defective in making no difference between an income depending on personal effort and one arising from accumulated funds. The House Duty—the most satisfactory of taxes on expenditure—is, as Mill says, a nearer approach to a fair Income Tax than that which bears the name: it measures a man's ability by *sacrifice* rather than by revenue. The difficulty, however, is that one is a question of sentiment not easy to apportion, whilst the other is positive. Naboth, it may be remembered, would not sacrifice his ancestral vineyard for all the royal treasures. Hardships meet us at every turn in life, and such is that of treating alike a temporary, precarious income and a permanent, secure one. Mr. Dudley Baxter contends that no one tax will realise Equality, any more than a single strap suffices for carrying a knapsack.

Under this maxim the teacher should discuss with his pupils the question of the fairness of educating some people's children at the expense of others.

(2) The maxim of Certainty: a tax should be fixed in advance in all its details. Eastern countries not under

Western influence violate this, with the result that oppression is rife. One of Mr. Gladstone's merits as a master of finance was that he almost put an end to *ad valorem* duties in the British Customs Tariff, which, with but very few exceptions, is now based on specific duties.

(3) The maxim of Convenience: a tax should be levied at the time when the taxpayer will be most able to afford it. Thus in some countries facilities are given for payment of the Land Tax by instalments. The British Excise and Customs arrangements conform to this rule; Income Tax not so closely as could be desired.

(4) The maxim of Economy: as far as possible a tax ought to bring into the Exchequer as much as it cost the citizens, by which is meant that the expense of collection, which necessarily diminishes the yield, should be kept down to a minimum. Here Direct—and notably that on Income—contrast favourably with Indirect taxes. Stamps entail loss of both time and money.

The points now chiefly discussed in the Theory of Taxation are the three methods known as Proportional, Progressive, and Degressive. The Proportional would use the same rate on all amounts of the thing taxed; the Progressive (or "graduated") would establish an increased tax as the thing taxed increases; whilst according to the Degressive, the tax will increase up to a certain point, and then be constant. The Progressive seems to recommend itself more than the Proportional. In the United States taxation is adapted to the idea of graduation, and this meets one of the demands of Socialists. "Beyond a certain level of wealth," it has been said, "we no longer think of savings or abstinence, but of amassing riches, luxuries." A rich man feels the larger percentage no more than a poor man feels the poor rate. Sir William Harcourt gave effect to this principle in his revision seven years ago of the Death Duties, for which he has earned a warm encomium from Professor Seligman. The British Income Tax, it should be noted, falls under the head of Degressive.

Pursuing the distinction between Direct and Indirect taxa-

tion, we may note some of their comparative advantages and disadvantages. One of the merits of a leading *direct* tax, that on inhabited houses, is the ease with which it is exacted, and the impossibility of evasion; equally noticeable in respect of the Land Tax. A disadvantage discernible in the Income Tax is that the burden is one which the Government is unable to conceal from the taxpayer. But this tax is very convenient in the hands of a Government having to raise money in an emergency. *Indirect* taxes have the advantage that people pay them without noticing it; but this is perhaps not an unmixed benefit, as it may allure a Government into extravagance (Symes, p. 186). They are very productive, and also largely check misdirected private consumption. It is only through these taxes that the working classes can be reached. But they are disadvantageous in so far as they may cripple commerce (Customs) or hamper industries; the collection of such taxes is expensive, so many officers being needed; and they are liable to evasion (smuggling, illicit distillation, etc.).

By means of monopolies in their hands Governments are able to raise a trade revenue; thus school pupils may be told that whatever part of the penny, of the ten *centimes*, or ten *pfennig*—represented by an English, a French, or German postage stamp in daily use—which is not covered by expense to the country issuing it is equivalent to a tax paid by the person buying it for the transmission of his letter. And so also of profits on tobacco in France, etc., the actual dealers earning a sort of commission out of such profit.

Much has been heard in recent years of the "unearned increment" from rent, which advanced reformers propose should be appropriated by taxation, a point discussed in the larger manual of Professor Walker, whose countryman, Henry George, was the apostle of the notion; it had already been recommended by the French "Physiocrats" (*Economistes*). This proposal runs counter to the second of the above-named maxims; it would be practically impossible to ascertain the amount of this "rent," or differential payment, at present

accruing, it is by the advocates of the proposal assumed, to the ground landlord; but even if the amount itself could be known, the difficulty would still exist of discovering who really received it. Mill's own proposal, like his views on the Irish Land Question, was scarcely less unpractical. It would often be hard to tell how much of this "unearned increment" was the result of improvements effected by expenditure of money, and exempt. Unless the tax was insignificant, improvements would be discouraged.

It is a good exercise for pupils to work out the probable effect of the imposition of a particular tax. (1) A British *import* might be taken, let us say an article of food. This being a necessary, the pupil should be led to see that the tendency would be to raise wages in this country, to lower profits here, and thus to hamper British trade; and that whilst the foreign producer would be unaffected, save as the amount of trade done by him is less, the foreign consumer of the British exports taken by the latter in exchange would partly pay the British tax on the article of food. Or (2) a British *export* would serve for example, and none better than coal. A tax on this, leaving Great Britain for France, the pupil should understand, would make the coal dearer, by the amount of the tax, for the foreigner, who would have to bear the burden of this, if other things remained equal. The demand for coal in France may be (*a*) unaffected; (*b*) diminished, so that at the higher price an equal money value is exported; or (*c*) so far diminished that the money value becomes less. In the last-named event, money would flow from Great Britain to France, thus raising the price of coal in the former country itself (see Mill, v. 46).

As to abstention from the taxing of manufactured goods, see Mr. Gladstone's Budget Speech of 1860.

Having gone thus far with the connection between taxation and foreign trade, let us look a little at the question of Trade Policy in international relations, which determines Customs tariffs.

Great Britain, it should at once be explained, occupies in this respect a peculiar place among the nations. Most still

adhere to the traditional tendency towards "Protection," which formerly was connected with the erroneous idea that wealth consisted simply of money. This "Mercantile Theory" was exploded by Adam Smith and others; but Protectionism, the essence of which is the warding off of foreign competition by taxing imports in proportion to the demand for them, is more persistent. Nowhere is the influence of this idea more dominant than in the United States, and American economic writers are divided on the question; whilst the theory of Free Trade, according to which taxation shall be employed only for revenue purposes, with regard also to public morality, commands the support of all British economists and most others. On the other hand, most Governments are Protectionist. The argument of the German Protectionist List was purely political, not economic.

Bounties will, of course, have to be explained as subsidies paid by the Government to merchants in aid of the exportation of some particular commodity. The trader can therefore give the producer more for it. The system, by encouraging exports, runs parallel to that which discourages imports. The effect is that people of the country exporting the favoured commodity have to pay more for it themselves, whilst the foreigner obtains it at a lower price. European sugar bounties afford a recent familiar example. The idea of course is to increase production in that particular line; and the like industry in the imported country is crippled. Adam Smith showed that the practice tends to divert Capital and Labour from other industries to their disadvantage; so that the country giving the bounty really suffers in more ways than one, whilst only a small fraction of the community share the benefit.

The steps by which the present position taken by this country was reached fifty years ago should be carefully traced, in connection with the teaching of Adam Smith, and the policy of Pitt, Huskisson, Peel, and Gladstone, to which, in its developed form, Great Britain is definitely committed. Various attempts have been made to produce a reaction, notably in connection with the long depression for more than

ten years after the year 1873. But the majority of Englishmen who have thought out the question remain attached to Free Trade principles, as at any rate suiting Great Britain herself, and lend no ear to suggested remedies for international competition, as "Fair Trade" and the like.

One of the better recent critics of Free Trade, from an American point of view, is Patten. He speaks of demand for food as practically limited to a few articles; that, accordingly, India has to grow some wheat instead of more rice, whilst Ireland has to lay her land down for pasture and grow less potatoes; England's custom being in each case the consideration. Accordingly, he conceives that foreign trade is of little importance to any nation so long as the demand for food is so limited; that is, difference of soil and climate will be of little moment. His remark, however, that when England adopted a Free Trade policy, she did it in order to change the ratio of exchange, that is, to effect an exchange of more food for a smaller quantity of manufactured articles, seems entirely gratuitous.*

Temporary protection on the part of a new country was by Mill considered justifiable. Such a country may need time in which to rear industries for which it is adapted, and to compete successfully with older countries, which have all the benefit of organised capital, trained labour, and experience. The productive power of the new country, Mill thought, might otherwise not be utilised at all. This seems to be a question entirely of suitability. But for that the encouragement of the industry in the new country would operate as a discouragement to the production of those goods in the older countries, which should be exported for them to pay for the products of the new country. Some have urged against Mill's argument that protective duties once put on will never be taken off again. This, however, is surely foreign to English experience at home, where the very thing has happened, unless we are to say that

* There can be little doubt that what Cobden and Bright, who were themselves manufacturers, had in view was the cheapening of food in view of keeping down workmen's claims for increased wages.

the circumstances which govern British policy are altogether abnormal. Nevertheless it is a question whether the benefit derived from the encouragement of native industries is a sufficient compensation for the burden put on a young and probably poor community. The reader would find Mill's argument criticised in Thorold Rogers' *Political Economy*, chap. xvii. pp. 235 ff.

As part of the general question, students have to consider the arguments for and against an Imperial Customs Union, establishing, by agreement between the old country and her colonies, Free Trade within such Union, or preferential treatment as against outsiders (see *Lessons on Commercial Science*, § 131, xv., xxiii).

Coming to Customs practice, the teacher would probably find enough for his purpose in the pupils' manual, where clearance both outward and inward, with their various incidents, are introduced. It is at the Statistical Office of the Custom House that the monthly returns of imports and exports referred to in the newspapers are made up.

The Warehousing System, actually introduced for the first time at Liverpool a hundred years ago, was suggested long before by Sir Robert Walpole, whose foresight in this respect seems now as striking as the views of the London merchants as to his "Excise Bill" were shortsighted. Bonding warehouses have proved to be to the advantage of all interests concerned.

To the account of the clearing process given in the manual may here be added that merchants may pay by "transfer cheques"; the forms are obtainable at their own bank, and provide an order to the same, whereby the amount in question is transferred from the bank's reserve balance with the Bank of England to the account kept by the Government department with the chief institution.

The duties of ordinary clerical employees of His Majesty's Customs may be gathered from the following statement prepared for the present writer by a first-class clerk in the Long Room at Liverpool:—

"A clerk enters between the ages of seventeen and twenty. He is engaged upon one or many duties, according as he is employed at a large or a small port. A knowledge of shipping business is a good preparation, for he is required to inspect the entries of goods imported or shipped, and to check off the manifests or lists of cargoes. From a Customs point of view there are many restrictions laid down in regulations, from the arrival and report of a ship and her cargo until her final clearance and departure. These have to be known and intelligently applied. The clerk must be a good accountant, quick at calculations of duties and values. He should also be a good cashier, for the receipt and payment of money is at some time a duty of every clerk. A knowledge of bonds and of bills of sale of shipping, with their respective objects and obligations, is a necessity. The Customs Acts and the Merchant Shipping Act (part i.) form his statute text-book. The regulations made thereunder are many and various, which must be read and remembered. All this he may expect to meet at any port. At the middle-sized and small ports he will also have Board of Trade duties to perform; these have reference to the engagement and discharge of seamen, the supervision of articles, log-books, officers' certificates, and another and manifold class of cash business, with regard to which other parts of the Merchant Shipping Act and regulations thereunder apply."

With regard to National Debts, reference must be made to such books as that of Mr. A. J. Wilson.

It remains to say something further about Local taxation, which presents problems of its own. The chief of these were summarised in the Report of the Committee which specially inquired into the subject when Lord Goschen was President of the Local Government Board. This Committee were of opinion that "it is expedient to adjust the system of rating in such a manner that both occupier and owner may feel an immediate interest in the increase and decrease of Local expenditure, and that owners should be made directly liable, as well as occupiers, for a certain proportion of the rates."

A question sometimes discussed is that relating to what in America goes by the name of Betterment. The idea is that persons benefited by public expenditure should contribute to it to the extent of the increased value of their property.

Points arise here also in respect of the incidence of rates. How far do these fall on the working classes, on owners, on occupiers?

Local authorities may for certain authorised purposes raise money on loan, just as does Government; the interest is charged to and secured by the rates. Municipalities are now increasingly taking up money in this way in order to carry on trading enterprise, such as the provision of tramways, electric or otherwise. Any surplus revenue may be applied in reduction of the rates.

LITERATURE.

For Pupils:—

Jevons, *Primer of Political Economy.* Chap. xvi.
Symes, *Political Economy.* Chap. xvi.
Gibbins, *Economics of Commerce.* Chaps. v. and vi.
Whitfield, *Introduction to Commercial Science.* Chaps. xv., xxiii.
Jackson, *Primer of Business.* Chap. viii.
Gambaro, *Lessons in Commerce.* Chap. vi.

General:—

Bastable, *Public Finance.*
Seligman, *Essays in Taxation.*
Cohn, *System der Finanzwissenschaft.*
Wilson, *The National Debt.*
Baxter, *The Taxation of the United Kingdom.*
Nicholson, article on "Taxation" in the *Encyclopædia Britannica.*
Atterbury, article on "Taxation" in Palgrave's *Dictionary of Political Economy.*
Dowell, *History of Taxation.*
Hall, *History of the Custom Revenue in England* (to the year 1827).
Import List, Export List. The King's Printers.
Ham, *Customs Annual.*
Armitage Smith, *Free Trade.*
Patten, *The Premises of Political Economy.* Chap. viii., "Free Trade."
Parkin, *Imperial Federation.* Chapter on "Fiscal Policy."
United Empire Trade League: Leaflets and Pamphlets.
Essays on Imperial Federation. Sonnenschein.
Goschen, *Reports and Speeches on Local Taxation.*
Evening Continuation School Code: *Life and Duties of the Citizen.*
Traill, *Central Government.* Chap. iii.
Farrer, *The State in its Relation to Trade.* Chaps. xiv., xviii.

CHAPTER IX

ECONOMICS OF MONEY—BANKING—STOCK EXCHANGES—INSURANCE

"Papa, What is money?"—*Dombey and Son.*

AT a very early period of each one's life school pupils will have made acquaintance with the important "commodity" which bears the name of **money**, but very many, as men, remain to the end of their days with merely superficial knowledge of its properties, which works to their disadvantage, and this notwithstanding that each year of their life, it is to be hoped, will find them increasingly concerned with it. Ordinary teachers are naturally no better off in this respect than their fellows engaged in business, although the deficiency of some is cured by independent study of economic theory. About twenty years ago Professor Bonamy Price wrote, in the *Princeton Review*, that "Bankers and Merchants might learn from Aristotle what Money is and how it does its work." As it is, through neither Greek nor English have they been taught as boys anything about it except in arithmetic lessons, and those not very satisfactory (chap. iii.). The eleventh and twelfth of the writer's *Lessons in Commercial Science* convey such knowledge as everyone should possess before leaving school.

Money, like Capital (chap. iv.), does not readily lend itself to definition. Bagehot distinguishes six senses in which the word is used, whilst other writers on the subject differ amongst themselves as to whether an everyday *cheque* is rightly called "money." Such definitions, therefore, as the reader may come across elsewhere he must take for what they are worth.

On p. 71 of the above-named work would be found sufficient explanation of what is meant by speaking of money as a "measure of value" and a "medium of exchange." For measure of value Professor Walker would say Common Denominator (Sale and Purchase being the Numerators). The use of a medium of exchange is an illustration of the division of labour. The same writer adds a third function, that of being a "standard of deferred payments," as when a boy should buy a book on credit for a certain sum agreed to be paid later on. Of the universal permanent purchasing power of money an average boy would grasp the idea to whom the question should be put, if, without further information, he could distinguish two "sovereigns" stamped with the year 1890, one of which was earned in 1900 by selling cotton, the other earned contemporaneously by selling foreign postage stamps.

The teacher might then proceed to deal in turn with **bullion** and coined money. The history of coinage is a many-sided tale. The debasement of money has been an accompaniment of the loss of liberty, of which English history supplies illustrations. There is much in political history which monetary questions elucidate.

Metallic currency and the reasons for the use of gold and silver will follow; then the difference between a monometallic and a bimetallic **standard**, with the arguments used against bimetallism, such as that derived from Gresham's Law, and the counter arguments of bimetallists, and also proposals made for international bimetallism. Monometallism will, of course, be explained as that system, obtaining in this country, by which one of the precious metals is used as standard and the other for **token** money; bimetallism as the system according to which both metals, at a fixed ratio of weight, have the value attached to them of unlimited **legal tender**. As things are in the United Kingdom, and have been since the year 1817, gold bears at the Mint a fixed legal value per ounce at which it will be purchased, by usage through the mediation of the Bank of England, whereas silver is subject to the fluctuations of the bullion market, and is not minted to the same unre-

stricted amount as gold is; a circumstance which, so far as it obtains also in the United States, has there become a political question, and a Party has been organised which bears "Free Silver" on its banner.

So much for the **mint price** of gold. The **market** or exchange value of gold, on the other hand, will be its purchasing power over other commodities. This differs from the "mint price," so as to be more than that whenever the currency falls short of its nominal value, as by debasement.

The relation at the present time between a British **sovereign** and a **shilling** should be explained as being that, whilst twenty shillings are nominally equal to one sovereign, and are so issued by the Royal Mint to the public, the actual equivalence, by reason of the low price of silver (about *2s. 4d.* per oz. as compared with *5s. 6d.* thirty years ago), is different, and the State of course realises a profit on silver coinage, which is called "seignorage." In each case the State, by its stamp, attests the quality and quantity of the metal as being within certain limits.

By **appreciation** of gold is meant the increased value which attaches to the "yellow metal" by reason of a relative diminution of supply of it, and fall of general prices; by depreciation of silver, the diminished value of silver relative to gold (or other medium of exchange, as paper money), by reason of increased supply of the "white metal."

The economic **value** of metallic money, like all other commodities, depends on the relation between supply and demand; for if the supply or quantity of such money increases beyond the demand its value decreases, whilst if that demand increases beyond the amount in circulation the value of money rises.

If the place of metallic can be taken by paper money (below), its use being economised, the value will tend to fall.

The "rapidity of circulation" must also be taken into account, as to which reference may be made to Mill, iii. 8, 3.

Through the **durability** of gold and silver, the supply always remains large relative to yearly additions from the mines; so that money is not so much affected by fluctuations of supply,

and its value is not so much dependent on cost of production as are other commodities, food-stuffs for example. In connection with the ultimate limit to the rise in prices determined by the cost of production of the precious metal, see Mill, book iii. chap. ix.

As between money, then, and the commodities which it will buy, the case may be simply stated as follows. When goods are produced out of proportion to money, the same amount of this will purchase a larger quantity of them, which are relatively *cheap*, because the demand for money exceeds the demand for goods. On the other hand, if mines become more than usually productive, and more money becomes more quickly available than goods are manufactured to keep pace with the increase of money, those who have goods to dispose of receive more money for them, and the goods are *dear*, because the demand for goods now exceeds the demand for money. This will make clear what economists mean by saying that supply and demand are but two aspects of the same thing.

In any manual of economic history, pupils will often come across a reference to the part played by rise in prices in the economic condition of the people, and some suggestion and perhaps explanation by the teacher of any counteracting influences will be desirable. How is one to explain that by the time the supply of the precious metals had increased sevenfold since the opening out of the New World, general prices were only four times what they were at the end of the fifteenth century? The explanation is to be found in the vast exports of gold and silver from Europe to the East, in connection with the trade of the English and Dutch Companies in particular. Money had stimulated trade; demand had caused supply.

Prices fell between 1873 and 1890 through demonetisation of silver and extra demand for gold. Increased supply of the latter to the time of the South African War sent them up again.

When general prices rise and the market value of money falls, it is to the disadvantage of those in receipt of a fixed income. Depreciation of silver (above) has told upon the

salaries of British officials in India, which has hitherto had a silver currency; these have suffered from loss in *exchange*. On the other hand, those (as debtors) gain who have to pay a fixed sum. The opposite will, of course, happen in the reverse circumstances.

Exchange of money will come in for consideration as necessitated by different national currencies.

It is to be hoped that decimal money will soon be introduced into this country. Only three new coins, as it appears to us, would be wanted—one about 5*d.* = £0·02, one of about 2½*d.* = £0·01, and one of 1¼*d.* = £0·005—and eleven coins would replace the present twelve, after the crown, half-crown, sixpenny and threepenny pieces had been discarded. The penny might gradually give way, leaving just ten coins.

The distinction must be observed between current money and **money of account.**

So far the instruction will have been confined to metallic money. Boys, however, in each division of the United Kingdom, will have seen bank-notes, and recollection of such will prepare them for the investigation of paper money—that is, of CREDIT, as the word is used in the "money market."

It is essential to acquire, and for the teacher to impart, clear ideas on this subject; the lack of such is most injurious to the community. Pupils, by the aid of well-selected examples, should be *educated* into the economic notion of Credit as the form of trust or confidence, based on a promise given by a borrower of Capital, which the lender reposes in him, in view of production and productive consumption, whereby the use of metallic money is economised. The element foremost in the borrower's mind is that of Time, which, according to a characteristically British adage, *is money* in a twofold sense (cp. chap. xii.). Manufacturers and traders alike can carry on no business without expenditure ("working expenses"), which has to be provided for in advance of the results of their operations. Here comes in the service which Credit renders to producer and dealer. So much does it facilitate the transfer of goods from one person to another,

thus promoting expansion of trade (for its unhealthy aspects see below), that Macleod has been betrayed into speaking of it as creating Capital: what it really does is to assist the constant employment of resources which provide Capital.

It is chiefly manipulated by the institutions known as BANKS, which in this country as a rule do their work wisely, having, of course, fresh lessons to learn as time goes on. They render great service to the State by giving employment to capital which would otherwise be idle. Those operations which the STOCK EXCHANGES, with their more speculative tendencies, foster, are less economically commendable. The best form of credit is that which subsists between parties to "Trade Bills" and discounters of these, a subject which will be developed in due course. Amongst the inferior forms of credit are State Loans, so far as these are raised for purposes of a purely political and not economic character. To this topic also we must revert lower down.

The teacher may next at once discriminate the various instruments of credit in the hands of bankers and others, taking first, we would say, Bills of Exchange, of which "cheques" are but one variety; secondly, Letters of Credit; thirdly, Promissory Notes, of which "bank-notes" are a species; and last of all the miscellaneous "securities," such as Bonds, and the various "negotiable instruments" familiar to import and export merchants, such as Bills of Lading, Dock Warrants, etc. (cp. chap. vii.)

Having proceeded thus far, he will be able to give instruction by the aid of more intelligence on the part of pupils in the special features of banking itself.

What is the root idea in "Banker"? A boy will be aware that his father entrusts the custody of money to one, and from time to time withdraws some by filling up and signing a blank form of "cheque," which he, or perhaps sometimes the son on his behalf, takes to the "bank" and hands to a "cashier," receiving the particular sum in exchange; but the pupil's ideas on the subject will probably end with this, and not extend to the way in which it "pays" the banker to carry on

his establishment—how he, like other men of business by theirs, earns a profit by his. The teacher has to bring before the class that it will not suit the banker's purpose to take in and again disburse the moneys of the public, unless each "depositor" leave regularly in his hands a certain amount of such money of his own available for loans to others, so that part of any customer's money may be in the hands of other customers of the banker, although all the time the latter is responsible for its safety and return to the theoretical lender. That is, the banker is a money-broker, who, as it were, brings together the man who has money to lend and the one that wishes to borrow, each of whom has confidence in him, and he himself charges "interest" to the receiver of the loan, and to a certain extent shares this with the customer or customers who enable him so to act by "allowing" him or them a certain proportion of the proceeds under the name of "deposit interest." It is this use of his customers' capital as distinct from his own, which, as Ricardo pointed out, is the distinguishing characteristic of a Banker; any money of his own—he will certainly start business with some—he will use for loaning only as an ordinary capitalist, as do many "money-lenders" of the opprobrious class.

It may now be seen that Banking encourages men to think of "investing" rather than "hoarding" their money. As the banker is specially conversant with money as such, society looks to him to supply *good* money; he is expected to protect the currency from debasement and deterioration. Pupils may have noticed the scales on each bank counter.

The subject of loaning may be pursued with reference to the principles which determine the current rate of interest. Pupils will have worked sums in arithmetical work at varying rates, and probably too often on the basis of loans for years, which, they should be told, are little heard of in the business world; for this they need practice in interest for so many days or months.

Let boys, then, consider why money should be loaned at a rate so low as 2 per cent. at one time, at so much as 6 per

cent. at some other time, and thus arrive at a conception of the "value of money" in market parlance, which must be distinguished from the sense in which the phrase is used in Economics. The connection between this and the "security" offered by the borrower, according as it is one readily marketable and exempt from liability to depreciation or not, will need consideration. The different security looked for at a port from that available at an inland town—in other words, the value of security, according as it takes the form of imported produce or title-deeds of property, if not growing crops or live stock, will provide material for instructive study.

The need of exercise of caution, of prudence, on the part of every banker, if he is not to suffer loss, boys may have learned from such a tale as Besant and Rice's *Ready Money Mortiboy*, well describing the different mental fibre of the rivals Messrs. Mellishop and Mortiboy; whilst teachers themselves may learn something further in this particular from the perusal of *The Country Banker*, a racy work by Mr. George Rae, so long the able and esteemed General Manager of the North and South Wales Bank, with its headquarters at Liverpool.

Gross interest, besides remuneration for forbearance, includes something for risk; when this is abstracted, *nett* interest remains.

"Usury" was used in Latin and Middle English of all interest alike, but is a term now applied only to such remuneration of capital loaned as does not rest on an economic basis—interest paid to "money-lenders" by spendthrifts. At one time interest was altogether forbidden, ancient and mediæval authorities not seeing the service rendered. Why, a modern would ask, should acquisitions of purchasing power be gratuitous? Afterwards the rate was regulated by law, until in the reign of William IV. all such laws in England were repealed. The economic rate tends to a minimum, as capital and competition among capitalists increase in old or progressive countries. Here security for loans and investments is for the most part good in normal trade circles and

in times of stability; but inflation of credit will counteract this (see below).

Negotiable instruments, of which Bills of Exchange are the chief species, are characterised by the property of transferability from one holder to another by mere indorsement, and the same piece of paper serves for the settlement of any number of debts as between entirely different parties, thus economising immensely the use of coined money. They may, accordingly, be likened to passes, few in number, which can be used by many persons in succession for admittance to an entertainment instead of a separate counter being necessary to each applicant.

The nature, varieties and legal incidents of *bills* are set forth in the writer's Twelfth Lesson. We may then suppose the case of a manufacturer whose terms of payment (as most usual) are $2\frac{1}{2}$ per cent. discount for cash in a month, or a "three months' bill." If the customer take the credit, the manufacturer will instruct his cashier to make out a "draft" for the amount, which will be sent to the dealer for acceptance, who does the needful, and returns it as an "acceptance" to the drawer. A document passing between such parties, if both are of approved standing in the eyes of the "Money Market," will rank as a "fine trade bill," and be treated favourably if the payee, instead of keeping it until it "matures," sends the acceptance "indorsed" by him to his banker to be discounted; that is, for the amount to be advanced to him by the banker less the latter's charge for discount. This will be governed by the official, and relatively low, rate weekly declared by the Directors of the Bank of England, as that at which this institution will take first-class bills. Those bills in highest consideration, as affording exceptional security, are bankers' own acceptances or bills bearing their indorsements.

The Banker's profit on discounts consists of the difference between the rate that he allows to ordinary depositors, say $2\frac{1}{2}$ per cent. (as at the time of writing, when the official Bank Rate is 4 per cent.), for their money, which he thus

turns to account, and the rate, say (under the same circumstances) $3\frac{3}{4}$ to $4\frac{1}{2}$ per cent. according to time, which is followed between himself and such customers. The market rate, by force of competition between the ordinary banking-houses (the "open market") and the patriarchal establishment in "Threadneedle Street," tends to be below the official rate so far as regards the same class of bills concerned. The Bill Brokers, or Discount Houses, however, who act as intermediaries, procuring bills from sellers and supplying them to buyers, especially through their provincial connection, will allow their customers on deposit, in the same state of the market, 3 or $3\frac{1}{4}$ per cent., according as the money is left at call or subject to notice.

The Rate of Discount represents price paid for the use of Cash; the Rate of Interest, price paid for use of Capital. Mill's exposition (iii. 23, 4) is not quite clear.

The Banker's rate for *loans* is habitually 1 per cent. higher than the official rate of discount. All this, apart from what he earns by investment of his customers' money in the Funds, etc., will show what a profitable business Banking is.

The banker will probably part with a bill under discount by further "negotiation" with a third party, the document passing from one person to another continuously, either by way of settling an account or by re-discount on the part of brokers until it is presented for payment, when the acceptor of course will find it covered with successive indorsements.

One of the ways in which Bankers are able to stimulate trade lies in their aiding, by discounting bills and otherwise, new men (particularly noticeable in the United States), who seek to build up a business by contenting themselves with low prices; the moneyed interest thus may control competition, which will at any rate be a good thing as regards the struggle with foreigners.

Bankers, or bill brokers, buy bills from exporters to sell them again to importers. Import merchants, through thus being saved the expense of sending money from one country to another, are able to sell their goods at lower prices than otherwise.

Pupils will now be prepared to imbibe some elementary ideas on the subject of the **foreign exchanges**, which by Economists is treated under the head of Foreign Trade, but in its practical aspects is better taken in the present connection, as is done in the pupils' manual. We may here develop somewhat the account given in the Lesson, in view of teachers' own study.

As the result of trade between, for example, Great Britain and the United States, certain traders here have become indebted to certain others in America; and to save the trouble of sending bullion or coin from Great Britain the indebted traders seek out traders here to whom American traders are similarly indebted: the British creditors transfer their claims represented by bills, by sale to the debtors on this side, who, in turn, make over to their creditors the claims on America, which can easily be collected. Thus the need is removed for transmission of the precious metal across the Atlantic in both directions.

If there should be exactly the same amount at any one time owing by Great Britain to America as by America to Great Britain, the exchange would be effected at "par," *i.e.* the "mint par" of exchange, being the numbers expressing the comparison of the gold contained in the British and American standard coins respectively (*e.g.* £1 = $4.86). Equilibrium being established, neither country would have any advantage over the other when settling. But if Great Britain has been buying more from America than the latter from her a money balance is due to America; that is, the balance of trade is "unfavourable" to this country—to use the conventional term, which is a relic of the old "Mercantile System," that regarded all exportation of coin as injurious. More British merchants would have bills to pay in America than those who have to receive payment from there. In London bills on New York, for which there will be strong demand, will command a premium; whilst in New York bills on London, for which there will be little demand, will be at a discount. If the exchange is payable in sterling, the lower

it is the better for this country; if payable in foreign currency, the higher it is the better for us.

The "sight" or *short* rate for bills is for those which have less than a month to run. As these are most in favour, the rate for them governs all other rates for money at the time. The *long* rate is that for bills beyond the limit just named, and is based on the short rate, thus a person taking such a bill has to accept the risk of an adverse change taking place in the drawer's or the acceptor's financial position in the meantime. Something must be allowed for this, and interest added (at the rate prevailing in the foreign market) for the time which must elapse before the due-date of the bill, with bank commission also. The aggregate of these added to the short rate will give the long rate. Those having to make foreign remittances have constantly to consider which will be the cheaper course to adopt—the purchase of a sight bill or of a long bill. From the point of view of a foreigner, who has to remit to London, the longer the currency of the bill the less he will pay for it, and the long rate for him is less than the sight rate.

The fluctuations of exchange are caused by (1) *Trade* influences—the varying relation between the volume of imports and that of exports; (2) *Stock Exchange* influences (below), through international movement in buying and selling stocks and foreign loan transactions; and (3) *Banking* influences, *i.e.* the manipulation of locally different rates by the investment demand of foreign dealers for British bills, who act through Foreign Banks established in London.

The connection between the Foreign Exchanges and the **Rate of Discount** requires separate consideration. When the amount of gold which, from whatever cause, may have to be sent abroad from this country increases so much as to have an appreciable effect on the Bank of England "reserve" (below), the Exchanges turn against us, and the directors then raise their Discount Rate in order to attract gold back to London to their own vaults, with the result that the Exchanges take a turn favourable to London. Discount tends again to

weaken (an "easy" market) as the supply of gold here is increased; just as, when Exchange relapses, Discount is said to "harden" (a "tight," stringent market).

From the fact that London is the centre of the settling operations, importers abroad of British goods usually buy bills on London, in preference to remittance by a draft. This is done every day, and "Continental Exchanges" may be seen in the London and leading provincial daily morning newspapers. The London Course of Exchange, on the other hand, may be followed in the issue of the same journals appearing on Wednesday and Friday of each week, after the meeting of the British exchange brokers on the respective previous days.

For other details of Exchange the reader would find in the manual all needed by way of introduction to special treatises on the topic, such as those written by Lord Goschen and Mr. Clare.

Cheques are defined by statute as Bills of Exchange drawn on a banker and payable on demand (cp. "Paris Cheque" in Money Articles). To the account of them given in the Lesson may be added that a "marked" cheque—that is, one on the face of which the banker upon whom it is drawn vouches for the amount being really available in his hands—acquires the character of a bank draft; and further as to a question alluded to above, whether a cheque is entitled to be called "money," the writer agrees with those who deny, from its not being part of the currency, that it is money in the same sense as anything else which is. It is true that it does the work of, and so far represents money, well or it may be ineffectively—is money's "substitute" or "surrogate"; but the same may be said of other credit documents which no one, confessedly, would be right in describing as "money." Its value is liable to more than mere depreciation; for the holder can ensure its "realisation" only by promptly effecting its "collection." If the drawer go into liquidation (chap. x.) before that is accomplished, the cheque may prove entirely barren. It is not accepted without reference to the credit of the person tendering it, as people would discover at well-

managed hotels. It is exemption from such reference that true money enjoys which is one of its characteristics. Notwithstanding the loose custom sanctioned by bank authorities, of their clerks treating cheques paid in as "cash" in "pass-book" entries, they one and all regard money as that alone which is *legal tender*. The most one can say of a cheque is that it affords a clue to possession of the money. If Torrens's view of money be accepted, that it closes the transaction, it is only necessary to say that a cheque has not that effect save conditionally: until the bearer, having given a qualified receipt (as he should do), receives, in one way or another, the actual money, his right to sue for it is not defeated. There can be no real difference between the juridical and the true economic points of law. A spurious coin and a "dishonoured" cheque have only superficial similarity: a counterfeit sovereign is not worth a penny, whilst a cheque for £30 given by a man who has only £20 in the bank may, through the banker's consideration, be cashed by his clerk, or rejected altogether, at the banker's option. Are we to say the cheque, thus arbitrarily treated, is money in the one case, but not in the other? It would be strange that writers should think or render it necessary to discuss the main point at all (cp. Mill, iii. 7, 12; Sidgwick, book ii. chap. iv.), but for the fact that English and American, unlike German economists, neglect the study of Law. An English judicial decision has shown how dangerous it is to treat a cheque as money. How can a promise or order to do a thing be the thing itself? Whatever the practice of private persons may be, prudent people do not make cheques payable by indorsement to creditors.

PROMISSORY NOTES, although subject to the same rules of law as Bills, differ from them both in form and, with a single exception, in the amount of credit which attaches to them, as explained in the Lesson. We may mention them here only in order to introduce that exception, the banker's promissory note, always spoken of as a **Bank-note**. Hitherto we have been concerned with currency only as metallic, and have now to deal with **Paper Currency.**

A considerable amount of the "circulating medium" of every civilised country is *paper*. In the United Kingdom bills and bank-notes are alike popularly described as "paper money," but the Bank of England is the only institution the note issues of which have been made legal tender, and therefore can be forced on everyone for acceptance (except by that bank itself), and these alone, accordingly, form part of the currency of England and Wales: they are true money. Like provision has been made by statute for Scotland and Ireland respectively. A limited number of other British banks enjoy a conditional privilege, by right of prescription, of note issue, which obtains currency, however, only in their respective districts. A boy may ask, Why is this? and How does it work? He should be told that the system not only economises Capital, rendering an increased amount of coins unnecessary for the purposes of expanding trade, but is a concession at once reasonable and expedient to bankers themselves, for the service, from the point of view of Economics, which their business renders to the State. How does it profit the bankers themselves? In this way. A banker, by issuing, to all persons dealing with and having confidence in them, their "promissory notes," whereby they undertake to pay on demand to any bearer thereof the amount stated thereon, is enabled to use the cash for which each note is a substitute whether for discounting bills or loans yielding them *interest*, no part of which they have to share with other persons, having thus an advantage over profits earned from deposits. Who, in the absence of any restriction by the political authority, will initiate the issue or determine the quantity that shall be issued, the Banker or his Customer? It is the Creditor, answers Dunbar. He "determines . . . with an eye to his own convenience, whether to hold his right against the banker in the form of a *note* or a *deposit*." "Bankers," the American writer adds, "cannot extend their liabilities except in response to a demand from the public." But are we to say that prudence has no voice in restraint independently of Bank and Customer? The State answered

this in 1844 and 1845 by the passing of Sir R. Peel's Bank Charter and other Acts, all of which are still in force. These have provided security against excessive issue, the risk of notes not proving "convertible" into cash on demand, and of undue inflation of credit, which leads to panic. A limit was imposed to the power of banks to issue notes. Those, in particular, of the Bank of England (details of the reconstitution of which may be learned from the pupils' manual), under the Act by which its special privileges as the institution having a monopoly of Government business were renewed, are protected by "a mixture of securities and specie," and regulations were added affecting the augmentation of its own issue through lapse of any of the others; whilst all other London banks and all Provincial banks started after the passing of the Act were prohibited from issuing notes.

Mill examines the beneficial or injurious effect of the Bank Charter Act, and balances the *advantages* which it gives in checking the spread of rash speculation with its *disadvantages* in hindering measures on the part of the Bank authorities to relieve the severity of commercial panics: he considers that the drawbacks greatly outweigh the benefits. So also Gilbart and other exponents. As to the aim ultimately to confine the issue of notes to a single responsible body, the provisions of the Act so far seem to have been thoroughly justified by subsequent widespread dislocations of credit caused by the failure of certain Joint Stock Banks. The Bank of England, nevertheless, as Bagehot has said, should be placed in a position to lend freely in times of stress to houses of assured stability, whose hardship at such times is that they unduly suffer from needless withdrawal of accustomed accommodation.

The Bank of England is, of course, able to use its own notes for the purchase of gold, but, on the other hand, has to accept issue in payment for gold withdrawn from its vaults.

By a "forced currency" is meant that all persons are required by any Government—as in South America—which resorts to such an unhealthy step, to accept "inconvertible

notes" in all payments at their nominal value. A rise in prices (below) may indicate "depreciation" of such notes, which ensues from an issue exceeding the needs of the circulation. Thus in Russia the paper "rouble" has for long been worth considerably less than the silver coin of the same denomination. The Government may derive great pecuniary advantage from the use of such paper currency: it gives immediate profit; the Government can purchase for a few shillings blank paper, to be engraved and issued as notes for, say, £1,000,000, almost the whole of which will be profit. But there is another side to the picture: although it may have the best intentions, great is the temptation to the Government to make excessive issues, as the surplus cannot be thrown on their hands. Moreover, the foreign trade of the country concerned is injured by the "balance" turning against it.

A Paper Currency should not be out of proportion to the existing metallic circulation. The state of trade at one time may require an increase of the currency, but when trade contracts, this supply will be redundant. Again, according to Gresham's Law, depreciated paper (or silver) is, in such circumstances, alone used by the public, gold being exported: the tendency is ever towards suspension of gold payments. Reference should be made to the experience of this country for some twenty years at the beginning of the last century.

Any issue of £1 notes, at present inadmissible in England and Wales, would probably aid the extinction of the existing issues of country banks. They would cost nothing to the public, who now readily use Postal Orders for the same amount, although having to pay for them; and they would economise the use of "till money" at banks. But Lord Goschen, when the idea of their issue was mooted a few years ago, did not secure the support of the bankers for his proposal, which is accordingly in abeyance. In Scotland and Ireland the advantage of such a currency has long been appreciated. In England, however, it has been anticipated that the working classes would not take to it.

The effect of Credit on prices is that the more it expands

the higher do these go, and the rise continues as long as confidence lasts (cp. Mill, iii. 12, 3). Inflation gradually brings on a **Crisis**, as the business world perceives that general confidence is impaired beyond the control of the Credit agencies. A commercial crisis is the completed derangement of the normal course of trade, which is convulsed from various causes, the chief of which is undue *speculation* on the part of traders; and it is generally accompanied by a financial breakdown, in which the Bank of England, as holding the "reserves" of all other banks, is looked to. The aim of this bank, since the Overend and Gurney disaster of 1866, has been to keep a large reserve; but the dangers of a *single* reserve are well shown by Bagehot (*Lombard Street*, chap. ii. pp. 36 ff. and chap. xii.). He, with other theorists, has condemned, by the light of experience of panics, the approval given by business men to the bank's holding aloof. It has the Government behind it, who can always authorise the directors to protect their store of cash by giving out more notes than the Act of 1844 sanctions, and can undertake to promote a Bill of Indemnity.

A crisis is generally followed by a period of **Depression**, marked by paralysis of enterprise. "Credit cycles" are the periods of time which recur after approximately equal intervals, in revived buoyancy of Trade and Industry.

The disturbance of each by these crises may be checked by preventive measures on the part of banks. The leading institutions are now somewhat more under the control of the Bank of England. When the market becomes threateningly "easy," the latter can raise its Discount Rate, or buy back Consols for the "Account," or withhold deposits of its extra cash, which are ordinarily at the command of bill-brokers. It has been suggested that it should further control the "Market Rate" by allowing interest on its deposits, like other banks, even if this required a yet larger reserve to be kept.

It will be worth while to compare the Banking Systems of the United States, of France, and of Germany. In America any of the so-called "National Banks" can issue notes by

securing these through deposit into and transfer to the Treasury of registered bonds of the United States. The interest on these the bank continues to collect, and retains the ownership of them. The Comptroller of the Currency supplies the bank with notes to the amount of 90 per cent. of the market value of the bonds deposited. The law prescribes a minimum reserve, which in the "reserve cities" (New York, Chicago, St. Louis, etc.) is 25 per cent., but in others 15 per cent. of their respective issues.

The Bank of France is in the same position as the Bank of England was down to the year 1844, that is, it is without any special provision for the safety of one class of liabilities more than another. Its general assets are charged in like manner throughout.

The Imperial Bank at Berlin represents a modification of the English system. The mixed basis is maintained, without specially securing the convertibility of the notes. These are uncovered up to £19,280,000 sterling. A tax of 5 per cent. per annum is charged on uncovered issues beyond this limit.

A teacher not previously conversant with the subject would now be able to use such a weekly Bank Return as is reproduced in the Twenty-fifth Lesson and Tables of Rates illustrating the above exposition.

Besides the Bank of England in London, the Bank of Scotland in Edinburgh and the Bank of Ireland in Dublin, both of which have branches in London, and throughout Scotland and Ireland respectively, are governed by their own particular charters. In the Metropolis there are, besides, illustrations of all other forms of banking carried on in the United Kingdom, such as the Colonial and Foreign Banks. The Colonial of course have as their object the promotion or aiding of trade between the Mother Country and the Colonies, whilst employment in one of the Foreign Banks (with which the two famous houses of loan brokers and "merchant bankers" have much in common) would render a clerk familiar with transactions in foreign bills. Messrs. Rothschild and Messrs. Baring (see Byron's *Don Juan*) do

not accept money on "current" but only on "deposit" accounts, and consequently do not use cheques. "Exchange business" is with them the main part of banking.

As already stated, only a limited and decreasing number of banks in England and Wales are banks of issue; whilst in Scotland and Ireland it is the exception to find a bank not circulating notes, those for one pound in particular.

Many amalgamations have taken place of late years. Thus Lloyd's Bank, Limited, has absorbed twenty-eight firms. Their *profit* in the year 1900 amounted to nearly five times the original *capital* of that bank, which was £143,000; now it is £1,300,000.

The history of Banking is a subject which should engage the attention of advanced students. The story of the early years of the Bank of England has been well told by Professor Rogers. For its political aspects Macaulay would of course be consulted.

The manager of a branch of the North and South Wales Bank, in a recent communication to the author, has described the routine of an ordinary clerk in a Joint Stock Bank:—

"At first a youth has to be on probation for a month, usually at the head office, and then, if satisfactory, he is bound apprentice for five years. In the course of his apprenticeship at a branch, as junior, he would have to despatch and deliver letters and messages, sort and classify vouchers, and make them up, and do any odds and ends of work that might be required. He would then be put to keep the journals or other books (pass-books, day-book, or ledgers, etc.) (chap. x.) as he gains experience; to collect bills and make the exchanges, taking occasionally a turn at the counter, and, once in a way, going to another branch to assist.

"A junior (as indeed is the same with all officers) is presumed to know the requirements of the bank's Code of Instructions; and once he is fairly acquainted with the routine of one office it will be easy for him to take it up at another office.

"At head office it is, however, somewhat different to the branches, as there officers, after passing the preliminary stages (I am speaking of the juniors now), are confined usually to a set of books. In some cases, when they are getting fairly experienced, they act as 'supernumeraries.'"

The State acts as a banker through the Postal Department. Its business under this head is familiar to all readers. British depositors' Savings Bank pass-books are practically Letters of Credit, whilst requiring, it is true, short notice; Postal Orders, like cheques to bearer, are freely transmissible; whilst Money Orders supply a similar safeguard, at least theoretically, to that of cheques marked "not negotiable." The French Postal Department has recently decided to substitute Cheques for Money Orders. A depositor will receive a book containing cheques for the amount of his deposit, which will be cashed at sight by any district post office.

There are, moreover, credit institutions which advance money on moderate terms, upon other than commercial securities. Such are, in Germany, the *Stadtleihhäuser* (municipal pawnbrokers), analogous to the French *monts de piété;* and in the country districts of Germany and Italy Co-operative Agricultural Banks, which render service to peasant proprietors.

Turning to STOCK EXCHANGES, we have little to add to what the reader would find in Lesson XXVIII. of the manual, where the constitution of the London Stock Exchange, the different functions of dealers (including "bulls" or "longs," and "bears" or "shorts") and brokers, the usages, slang (*e.g.* backwardation and contango), options, the classification of securities, the difference between funded and unfunded debt, the process of issuing a loan, or of floating a company, with the characteristics of "Wall Street" in New York, and of Continental Bourses, are, it is hoped, clearly explained. We may here say that an operator is said to be "short" when he has sold options and "futures" too freely, and has to "cover" by buying some back. He is "long" when he holds options or "futures" unsold. In cotton speculation "hedging" is the last step in "covering." Any Stock Exchange represents an approximately perfect market. "Free competition" has a maximum of elasticity.

As to the connection between the Rate of Interest and the Price of Securities, see Mill, iii. 23, 5.

Bastable, in his *Public Finance*, remarks that National Loans

used to be raised in this country preferably to Taxation, from the idea that they were raised out of Capital. It is now seen that they are raised from Revenue, just as taxes are. The subject of National Debts will of course be studied in special treatises.

Loans, as often remarked, are practically granted to a foreign country when its securities are received here in payment for produce exported from Great Britain. Foreign debtors remit "dividends" by purchasing from merchants in their midst bills on London drawn against commodities sent to Great Britain.

Many of the so-called "Trusts" are only undertaken to *make securities marketable*, which is the purpose, of course, for which Stock Exchanges exist. That is, these huge concerns, which are now so ominous, largely serve Stock Exchange purposes, rather than the interests of Trade.

As to mistakes made by business men in investing money outside that with which they are familiar, see Bagehot, p. 46.

One of the principals in a firm of stock and share brokers at Birmingham sends the following statement of the qualifications which a clerk should have for success in his office:—

"We should not recommend any young fellow to start with a broker unless he has wealthy relations ready to help him when he starts for himself. The information gained in a broker's office is most useful for future public men, manufacturers, and for anyone having to handle money on a large scale; but the training does not particularly benefit men who are to be always clerks. Except for a banker, the knowledge gained would not be of much use; perhaps we should also except the position of secretary to a large limited company, but then such a post is hard to get.

"A good general education is required. But the youth who enters a stockbroker's office, hoping ultimately to become a confidential manager or partner, will find the cultivation of certain principles of more importance to him than any preliminary teaching of the technical facts of a stockbroker's business. The "Laws of the Stock Exchange" can be learned *in part* by a few hours' study, but can only be fully learned and known by actual working experience. Then the order in which the office is conducted

varies very much as the firm is a large one with many clerks, or a small one with only one or two. In a small office the youth will find he is given a little of every kind of work; in a large office he may for months be confined to one single department. Stock-broking being essentially a confidential business, where character and responsibility outweigh every other consideration, the mental habits of a youth who desires to be a sharebroker are of greater importance in training than any mere information about office work and routine. Let the clerk learn to be as 'secret as the grave' in respect to everything communicated to him by his principal, or which he himself learns in his office work.

"Most brokers put new clerks to general routine work until they are familiar with the Code words and 'slang' used in the Exchange, and also with the prices of representative stocks.

"Accuracy is what all brokers desire in their clerks, and that even down to the very lowest part of the work they may be set to do: the mere misdirection of an envelope or mistake in a telegram may cause great loss and damage to the employer and his client.

"All calculations that may be entrusted to a clerk must be worked out by the quickest methods; there will be no opportunity for long-drawn-out sums. He will have to use the Decimal System of calculating money, and must have ability to convert freely from £ *s. d.* to equivalent decimals and back again. For example, £25 1*s.* 10*d.* Birmingham 3½ per cent. Stock at £110 2*s.* 6*d.* per £100 Stock is found at once in decimals.

"Among the most useful branches is Book-keeping, including a knowledge of Profit and Loss Accounts and Trading Accounts (chap. x.). Then a youth should learn to read, understand, and at once possess himself of the real merit of any 'Balance Sheet' or 'Statement of Accounts' (*ibid.*), such as is given in every annual report of the various Joint Stock Companies. He must also understand Course of Exchange and Foreign Standards of Money with equivalent English rates.

"Let him be able to catch, in the merest glance, day by day, the real news of the day touching Foreign affairs, Commercial and Monetary matters, as they are reported in high-class newspapers.

"Finally, if to all these things he adds a good knowledge of Shorthand and Typewriting, and can compose and write a crisp short letter telling everything necessary, and nothing beyond, he will certainly prove a treasure to any broker, large or small, into whose office he has entered."

INSURANCE is at the same time a form of banking, and an antidote to the evils of speculation overdone. It represents thrift and safety. Facilities exist for insurance of *life*, against injury by *fire*, tempest on land or *sea* (cp. chap. vii.), loss to which a lender of money on mortgage is liable, and that which an employer might suffer from either defalcations of his clerks or accidents happening to his workmen. The reader is referred to Lesson XVI. for further information.

A clerk in the head office of the Prudential *Life* Insurance Company contributes the following notes on work done there:—

"The staff of our office is so large—nearly 1,300 clerks—and the work so divided up, that I imagine a boy entering a smaller office would get a better general idea of insurance work in a shorter time.

"At the Prudential, after being nominated for a clerkship by a director or manager, and passing a very simple entrance examination, a boy (he must not be over sixteen) is drafted to one of the departments, the chief of which are Audit, Claim, Registration, Ledger, Loans, Solicitor's, Manager's, and Secretary's Office, whilst the smaller are the Titles, Estates, Actuarial, Statistical, etc.

"In my own (the Claim) the lot of a junior clerk for the first year or so is to 'fetch and carry' for the whole of the division (a section of a department). He has to do the simplest forms of writing and book-keeping, until in due course a junior is appointed under him. His work then improves, and after a year or so, by which time he may have three or more juniors, his duties include the examining of claim forms, and preparing for payment annuities, surrenders of policies, etc. The next step, if he prove a capable man, is his elevation to a third-class clerkship, when his salary amounts to about £200; thence to a second-class grade; and finally, by the time he has shown himself to be reliable and competent, he is made a principal clerk, at a salary from £300 to £500. The work of a principal clerk of any division of a department is responsible and varied, as he has about twelve subordinates.

"There are, of course, many variations to the course I have described. For example, a boy, immediately on his appointment as a clerk, could work for and finally pass the three Actuarial Examinations. He would then be placed in the Actuarial Department, where naturally the work is very important. There, as in

the Claim, unless he is a first-class mathematician, etc., the steps are the same from junior to principal, but at a higher rate of pay. The appointment as actuary, however, to any company must usually take a good time, as it ranks nearly equal with manager. In fact, several offices combine these posts as 'actuary and manager.' They are highly paid, receiving anything from £1,000 upwards.

"To succeed, a boy should be good at figures, writing, etc., and possess plenty of grit to do anything in an insurance office."

As elsewhere, it is better as a junior to commence in a branch than at the head office of a *Fire* Insurance Office. In the Manchester Insurance Office, we have been informed by one of its employees, there are two main departments, the Home and the Foreign. In the Home division there is the guarantee, home cash, agents' cash, loss and claims, and discriminating departments. The Foreign Department is made up of agencies. A junior's work consists of copying policies by hand or typewriter, issuing cover-notes, entering up different registers. One who aims at being a surveyor would find as subjects the most useful to cultivate, Plan Drawing, Architecture, and Science (Chemistry and Electricity).

LITERATURE.

For Pupils:—

Jevons, *Primer*. Chaps. xii.-xiv.
Symes. Chaps. ix.-xii., xiv.-xvi.
Devine. Chaps. xi., xii.
Whitfield. Lessons xi., xii., xvi., xxiv.-xxviii., xxix. (pp. 267-269).
Gambaro, *Lessons in Commerce*. Chap. xiii.
Gibbins. Chap. iv.
Jackson. Chaps. iii.-viii.
Edwards. Chaps. xiv., xvii., xix.-xxiv.

For Teachers and Others:—

CURRENCY AND BANKING.

Jevons, *Money and the Mechanism of Exchange.*
Jevons, *Investigations in Currency.*
Giffen, *Essays in Finance.*
Walker, *Money; Money, Trade, and Industry.*
Bastable, Article on "Money" in *Encyclopædia Britannica.*
Nicholson, *Money and Monetary Problems.*

Smith, *The Bimetallic Question.*
Lord Avebury, *Lecture on the History of Coinage.* Barrett Street Series.
Wilson, *Lecture on Money and Credit.* Barrett Street Series.
Gilbart, *History and Principles of Banking.*
Bonamy Price, *Currency and Banking.*
Macleod, *Elements of Banking.*
Patterson, *The Economy of Capital.*
Rae, *The Country Banker.*
Moxon, *Practical Banking.*
Dunbar, *History and Theory of Banking.*
Bolles, *Industries of the United States of America* (pp. 783-812).
Thornton, *Credit.*
Foxwell, Pamphlet on *Depression of Trade and Crises.*
Bagehot, *Lombard Street.*
Clare, *Primer of the Money Market.*
The Banker's Magazine. Monthly.
The Economist. Weekly.
The Statist. Weekly.
Jones, *Guide to Professions and Business* (pp. 85-8).

FOREIGN EXCHANGES.

Goschen, *Theory of the Foreign Exchanges.* French translation by L. Say. German translation by Honncher; also by Beta.
Clare, *The A B C of the Foreign Exchanges.*

STOCKS AND SHARES.

Crump, *Stock Exchange Speculation.*
Gibson, *Stock Exchanges of London, New York, and Paris.*
Investors' Review. Edited by Wilson. Monthly.
London Daily Morning Newspapers: Market Reports.
London Daily Special Financial Newspapers.
New York Financial Chronicle.

INSURANCE.

Urlin, *Hints on Business.*
Board of Trade Life Assurance Companies' Annual Returns.
Bolles, *Industries of United States of America* (pp. 813-49).
Jones (pp. 124-6).

CHAPTER X

BOOK-KEEPING AND ACCOUNTS IN THEORY AND PRACTICE

"Book-keeping by double entry is amongst the finest inventions of the human mind."—GOETHE.

THE topic consideration of which will complete our account of the intellectual side of Commercial Education—formerly regarded as beginning and ending with it—is inseparably connected with the subjects before us in the chapter just closed. Mr. Platt, in one of his justly popular books, has remarked that "by a system of Book-keeping exchanges of goods for goods, value for value, is made by cheque from A to B, and the sum simply credited to B and debited to A; no money passes." Accounts regard Money in both its main aspects; and Book-keeping, in one way or another, records the monetary effect of every transaction of a man of business.

The Anglo-Saxon race is credited with a special capacity for figures. British accountants are requisitioned for the Continent, and if practical knowledge of foreign languages were more widespread amongst us we should probably not find writers like Tolstoi speaking of resort being had to "a German expert from Moscow, who for 500 roubles fee agreed to put the book-keeping of the estate in order."

Let us see how the matter was regarded in England two hundred years ago, when the Bank of England was in its infancy, and that marvellous structure of Credit being first erected which Europe has learned from our island (chap. ix.). We will continue a quotation from the *Spectator* commenced

at the beginning of chap. iii.: "I say this in answer to what Sir Roger is pleased to say, That little that is truly noble can be expected from one who is ever poring on his Cash book, or balancing his Accounts. When I have my Returns from abroad, I can tell to a Shilling, by the help of Numbers, the Profit or Loss by my Adventure; but I ought also to be able to shew that I had Reason for making it, either from my own Experience or that of other People, or from a reasonable Presumption that my Returns will be sufficient to answer my Expence and Hazard; and this is never to be done without the Skill of Numbers. For instance, if I am to trade to *Turkey*, I ought beforehand to know the Demand of our Manufacturers there (chap. vi.) as well as of their silks in *England*, and the customary Prices that are given for both in each Country. I ought to have a clear Knowledge of these Matters beforehand, that I may presume upon sufficient Returns to answer the Charge of the Cargo I have fitted out, the Freight and Assurance out and home (chap. vii.), the Custom to the Queen (chap. viii.), and the Interest of my own Money (chap. ix.), and besides all these Expences a reasonable Profit to myself (chap. iv.)."

It is with the **Contract of Debt** in particular that we are first of all concerned in the present place; and, for this, reference may be made to Lesson XIV. (§ 111). The relation of debtor and creditor is one easy for all to understand; and we have already discussed the difference between cash and credit. The latter occasions the need to "render" an ACCOUNT. When pupils have seen and examined a form of "Dr. and Cr. Account," and filled up one given them in blank with figures supplied by the teacher, they should thenceforth be required to rule columns for themselves, which will afford practice in the exercise of care and neatness.

Passing to Lesson XXIX. they will meet with a form of **Invoice** and explanation, and after the framework of this kind of account is well in their minds, which will provide material for home repetition in view of *oral* examination in school, they should at the first opportunity make an invoice out from

materials dictated or written on the blackboard by the teacher. Before going further, at the third lesson there should be repetition of oral questioning on the same subject, to fix in each one's mind, once for all, that an Invoice is a statement of cost of goods *bought*, *plus* any charges that may arise in the forwarding of them, such as cartage, brokerage, or commission, but are not always necessarily debited to the customer, and may be calculated in the price agreed to be paid by him.

Next, reverting to Lesson XXI. (§ 187), the class will renew acquaintance, in a more practical way, with a form of *account-sales*, and dealing with this species in the same way, should arrive at the conception, to be clearly engraved on their minds, of a statement of goods sold, *minus* any charges that have been incurred in the delivery of the goods, of which some will always be found to exist; and the nett proceeds will be the balance of the sum received by the trade rendering the account for the goods after the deduction of the charges.

In either case the teacher, before any text-book is referred to by the pupils, may introduce the subject by awakening their curiosity, and leading up to some idea of what to expect from question and answer based on the pupils' intuitions.

Attention to the form taken by an **Account Current**, as given at p. 260 of the Manual, being always a transcript of a ledger folio, might be reserved until some progress has been made in a study of which we have yet to speak. And so with the difference between Book debts and Bill debts, observance being always maintained of the educational principle so well enforced by Mr. Herbert Spencer, that Practice shall precede Theory, although this, in its proper place and order, must not be neglected or, still less, depreciated.

Pupils will, however, be already able intelligently to get hold of the *principles* governing **Tender**, and of **Satisfaction** and of **Guarantee**, etc., set forth in §§ 284–290. There is much in pupils' ordinary relations with one another to which it will be possible for the teacher to appeal by way of elucidation or illustration.

This much, at any rate, in the writer's opinion, should be

taken before BOOK-KEEPING, which, almost the last subject forming part of scholastic training in view of business life, will take up the rest of this chapter.

Readers of *Wilhelm Meister* are well aware that the great thinker of Weimar, who lived just long enough to hear of the first railway journey taken by some English statesmen, definitely bringing to a close, as Dr. Arnold said, the Middle Ages, has bequeathed to his countrymen many golden sayings, of which they have been studiously mindful since their "regeneration" thirty years ago. In the immediate context of the words which appear at the head of our chapter, he goes so far as to say that every "*Hausvater*" (father of a family) should use double-entry book-keeping in the management of house-keeping affairs. Whether Goethe followed his precept in recording transactions with his publishers we do not seem to be told by Eckermann or Lewes. But he had evidently not contented himself with a superficial investigation of the merits of scientific book-keeping as an educational subject; so that the remarks which some recent writers of essays on education have made in derogation of its claims this illustrious writer could not have endorsed. "What a thing it is," he observes, "to see the order which prevails throughout his business! By means of this he can at any time survey the general whole, without needing to perplex himself in the details. What advantages does he derive from the system of book-keeping by double entry! . . . Order and arrangement increase the desire to save and get. A man embarrassed in his circumstances, and conducting them imprudently, likes best to continue in the dark; he will not gladly reckon up the debtor entries he is charged with. . . . I am convinced, my friend, that if you once had a proper taste for our employments, you would grant that many faculties of the mind are called into full and vigorous play by them." Cp. the raptures into which he went when visiting a cotton mill in Switzerland that left a lasting impression on his mind. Freytag acted wisely in the selection made of a title for his famous romance. The writer of *Clegg Kelly*, again, represents his General Theophilus Ruff as saying:

"The folk about here will tell you that I am crazy. My nephew wishes I were. Once his father tried to prove it. But when the judge had looked inside my account-books and examined my system of book-keeping, he said that, mad as I might be, it was a kind of madness which was very well able to take care of itself."

The **educational** importance of the subject lies in the training which it affords in prescience, arrangement, accuracy, and avoidance of mechanical, most of all slipshod, work; in the cultivation of conscientious taking of pains, to do the right thing with reference to time, place, and manner of execution. Experienced teachers of book-keeping are familiar with the pleasurable satisfaction diligent pupils have in getting out a balance sheet correctly, and the displeasure with themselves in the contrary event. For the **economic** aspect, see Schönberg, *Handbuch*, ii. B., pp. 230, 260.

The first thing to consider with regard to the sort of book-keeping one should start with has reference to the distinction, which must be held fast, between the theory and practice, because the non-recognition of the difference has been fruitful in bad work, and in attaching discredit to school instruction in the subject. Schoolmasters, allowing themselves to be betrayed into a desire to meet the supposed views of business people—conceived as always saying to themselves *vitæ non scolæ discimus*—have too long failed to keep apart "the essential from the accidental; and the puerility of the examples set by the tutors, and their utter incompetency to do justice to the subject, have contributed to the general and just belief that the notions on book-keeping acquired by a lad at school are not merely useless but absolutely pernicious." So writes an expert. It is the Theory which is universal. The questions remain—To what extent can book-keeping profitably enter into school work? How far shall Theory and Practice respectively be carried, if taken up at all, before pupils enter a commercial college or start in an office? Shall the system taught at first be that of Single or Double Entry?

The writer hesitates not to say that book-keeping may very

well and preferentially "keep" for the **last year** of a boy's school life, as the intelligent study and teaching of it alike presuppose the possession of considerable commercial knowledge on the part of all. To make it really interesting one must take the class through the whole of a transaction, with the bearings of the various incidents of which they should be familiar; with the buying and selling, the transport, mode of payment, and with correspondence in connection (cp. chap. xi. and Herr Leitner's article in the German *Zeitschrift*, vol iii. pp. 193 ff.).

With regard to the **scope** of school work, no attempt should be made to go beyond *Home* trade, or to take other than transactions in goods, *i.e.* ordinary commercial book-keeping, and this for whatever kind of school the answer is sought. In each case the purpose should be to put the pupils in the way of arriving at definite results, the ascertainment of Nett Profit so far as regards Income, and the framing of some final statement as to Capital, whether on a large or small scale of operations, so that before leaving school a pupil should be able to retrace his steps, and carry away a clear idea of the way in which he was led. A certain amount of *practical* work must be done; for, as an Edinburgh correspondent who is a chartered accountant there with articled clerks, and himself an examiner, writes, "It is difficult to understand the theory without daily practice."

The choice for school work between Single and Double Entry depends upon the kind of school or pupils concerned. As the horizon of most of those in elementary schools going into commercial life does not go beyond Retail business, and employers on that side of business still adhere to Single Entry, who, from their own point of view, will be best aided by those who do not set aside or disturb that to which they are partial from long use, an answer given by Dr. Adler in the German periodical (vol. i. pp. 272 ff.), having in view continuation schools, might seem satisfactory: that the system of **Single** Entry should be taken, in the first instance, for those educated in elementary schools. It is the view, apparently, of Mr. Alfred

Nixon, C.A., of Manchester, one of the most experienced of book-keeping teachers, if we may judge from his Manual of *First Lessons*, intended for pupils of these schools. The present writer's experience has lain in work done with those of intermediate or second-grade schools, for whom he is of opinion a commencement may be made at once with **Double** Entry. The fact that it is not so easy as the other is its best recommendation with regard to older pupils. Thus, if such an excellent book of its kind as Nixon's should guide teachers of the one kind of pupils, one like the *Elementary Book-keeping* by another experienced teacher, Mr. George Lisle, of Edinburgh, would render corresponding service to those concerned with the higher grade. Nixon's little manual commences Double Entry with the second half of the book (Lesson XIII.); whilst Lisle's text-book gives a page or two to Single Entry at the end only, which is really quite enough for any student who has mastered all that precedes. He will not need, as one of the other class, more than the slightest amount of practice in Single Entry. A teacher using the first-named book might think of sending in pupils for examinations of the standard of the Lancashire and Cheshire Institutes' Intermediate Grade; whilst students who have been taken rightly through the other should be able to face with confidence papers set in the Scotch Leaving Certificate, and Oxford or Cambridge Local Examinations. They could immediately afterwards take up with satisfaction either the second part of Mr. Nixon's manual of *Advanced Book-keeping*, or Mr. Lisle's *Accounting in Theory and Practice*. Such books are of course in the hands of teachers of evening classes, whilst most school teachers, we presume, make incursions into Mr. Thornton's ingenious manuals, from which much may be gathered as to educative method with boys.

It has been shown, by reference to Cicero and Gaius, in § 117 of the pupils' manual under "*double entry*" that the Italian method existed in a crude form in old Roman times. So much does book-keeping appeal to sense of *order*, that it must have been taught to Roman schoolboys.

Some further remarks of an expert, who has already been quoted, on the *teaching* of book-keeping, will fitly close the notice of this subject. "To the inquiry whether it is possible to impart to a lad during school life any instruction in Book-keeping and Accounts which would be of actual and material use to him in an accountant's office (below), or a counting-house, the answer may be made absolutely and without any hesitation in the affirmative. Notwithstanding what a good many accountants of the old—and it is feared the more stupid—school may say, it would be of immense benefit to a lad who enters an accountant's office if the principles of double-entry book-keeping were lucidly and fully explained to him before he goes into business. Most accountants have not the time to sit down in business hours and explain, in a way suitable to the capacity of a schoolboy, the principles of book-keeping; indeed, it is very reasonable to suppose that an accountant in active practice has scarcely adequate conception of the doubts and difficulties of a beginner. To him his business has grown so familiar that he does not often realise the position of those whose minds, as regards such matters, are either in a blank state, or worse still, have been confused by school teaching. For a year, or a year and a half, therefore, an accountant's clerk has, in many cases, the most hazy notions of the principles of book-keeping, and for a long time is perfectly bewildered with what he sees, and does not in the least comprehend the *reason* underlying one-half of what he is told to do. It is absolutely certain that there are hundreds of clerks who, after being in an accountant's office for twelve or fifteen months, only then begin to see dimly, and, as through a darkened glass, many things, which a month's capable tuition at school would have thoroughly grounded them in. We say this is the fact, and we know whereof we speak. . . . The schoolmaster should recognise that the principles and practice of book-keeping and accounts require for their just and satisfactory explanation men whose whole lives have been devoted to such matters. . . . The reform should take the shape of practical accountants, known

to be able and experienced men, being engaged to give instruction in book-keeping" (Gee's *Guide to the Accountancy Profession*, pp. 32 ff.). See further the remarks as to this in Linde's standard pamphlet, *The Articled Clerk*.

We may proceed, no longer with reference to the curriculum of a primary or secondary school, to consider the systematic study of the subject carried on by one who has left one or other of these, and is able to attend the classes of a School of Commerce, or other like institution.

Lisle, in his larger work, classifies accounts which compose higher book-keeping thus: Mercantile and Manufacturing, Mining, Financial, Fiduciary (Executorship and Trust), Public (Government, Municipal), Company, Bankruptcy, Investment and Financial work (investigation into business concerns and Auditing), Estate and Property Accounts, Arbitrations.

An important difference arises in respect of trade according as it is Home or Foreign.

Under HOME Trade accounts fall those of manufacturers, warehousemen (in the London and Manchester sense), and joint stock companies. These are ably treated in Nixon's *Advanced Book-keeping* (pp. 187–258). A few notes, in development of chapter v. above, on the routine of Midland Engineering Works, with which the writer is familiar, may be acceptable in this connection.

An order immediately after being received is entered in an Order Book, with a symbol attached to it which will be followed throughout. The stores, issued from the store room, to be used on the order are entered in a Stores Material Book. The total weekly amount of stores so given out is recorded on a Stores Return Sheet, from which the Stores Return Book is made up by the ledger clerk; and this supplies material for the Cost Book, kept by the cashier. The ledger clerk makes a summary of all orders for each week, and enters the details in a Stores Journal, which is posted monthly to the Nominal Ledger. This disposes of the **Material.**

In the **Wages** Abstract Book are recorded the whole of the week's wages of the different shops, presented to the eye at

one time; and in another the same for one month. This leads up to the Nominal Accounts as well as to Trading Account.

The Purchase Day Book is made up monthly; in the meantime the invoices are checked with the goods and prices. In this book are copied the total of establishment charges and capital from the Stores Return Book. The balance of purchases is then debited to Production in the Trading Account.

When the goods are being despatched, an entry is made by the forwarding clerk in the book kept by him, with invoice number appearing in the margin. From the Forwarding Book the Sales Day Book is made up, and this is posted fortnightly to the Ledger.

Under FOREIGN Trade, **Import** and **Export** have, of course, to be considered separately. London import trade is taken in Nixon's advanced Manual, at pp. 275–294, the usage in the Tea trade very suitably serving as example. Consignments and Manchester export business are admirably expounded by the same writer in his chapter vi. and chapter xii. as far as p. 274.

Let us here take the usage in execution of an order at Liverpool for the purchase of spot cotton on behalf of a Continental correspondent, B. Conrad, of Bremen.

The article will be bought, according to circumstances, either on a descriptive quality, say "Middling G.M.," or equal to a sample.

Let 100 barrels be purchased, either direct or, as supposed, through a broker, whom we will call John Smith. When sampled by the warehouseman (in the Liverpool sense of the word), found correct, and ordered to be shipped, the invoice clerk will make out invoice.

lbs.

100 *bls.* 45,000 *Cotton.*

less tare. *Nett @ 3½ for Cash, less 1½ %.*

Cash in 10 days. *Charges—*

Brokerage ½ %. Shipping Charges.

Commission 1½ %.

Due date.

There will be the question of insurance (fire, while inland; marine, on sea) to settle. Samples will be sent off to buyer. Payment will be according to agreement; credit may be long or short; something, perhaps, paid on account, with final payment on arrival of the cotton, found to be correct.

(*a*) How is such a transaction to be entered in the books?

Use must first be made of the Contract Book; then record made of petty cash for above charges, except brokerage; next, entry in Cash Book of amount paid to broker for cost of the 100 barrels; finally, entry in Journal.

B. Conrad. Dr. To Sundries:—Cotton, Charges, Brokerage, and Commission Accounts.
J. Smith. Cr. By Cotton bought, Brokerage, etc.

Payment made to broker at proper time will pass through Cash Book.

The student will balance the transaction, except item of Commission Account.

(*b*) How is payment made by B. Conrad?

He remits either the whole amount, or makes a payment on account, in a bill or cheque on London. Were the latter plan adopted, the bill or cheque would be entered in the Cash Book on the Dr. side:—

To B. Conrad. Remittance per London, £750.

As the bill or cheque could not be used just as it was, it would have to be presented in London for payment, and therefore sent to the bank with the "pass book," and is entered in the Cash Book on the Cr. side, and so in the pass book.

The Journal would show a credit for £750, transferred from the Cash Book, and the account would be square.

In actual business, however, things do not run so smoothly as this. A payment is made on account, and some allowance, perhaps, made for a claim. Interest is calculated as follows. If payment for the 100 barrels is due, for example, on 1st January, £700 may be paid on the 15th January, and the balance on the 15th February.

We now call the Ledger to our help, into which go the following entries from the Cash Book and Journal:—

(1) Under *J. Smith, Cotton Broker, Liverpool.*
Dr. and Cr. as per Journal and Cash Book.
(2) *Charges a/c.* *Dr. from Cash Book; Cr. from Ledger.*
(3) *Brokerage a/c.* „ *Journal* „ *Cash.*
(4) *Commission a/c.* *Dr. left open* „ *Journal.*
(5) Under *B. Conrad, Bremen.* *Dr. from Journal,* £750 *(due 1st Jan.); Cr. from Cash Book,* £700 *due Jan.* 5, £50 *Feb.* 15.

The Account Book must be made up for interest (5 per cent.) due to the Liverpool firm; when that is done, you see the Journal entry—

B. Conrad. *To Interest a/c, as per a/c,* £1 5*s.*

It will be asked, How is this item to be balanced? At the end of the year the capital of your firm belonging to different partners is debited with the interest agreed upon, and the total is debited to Interest Account in the Ledger.

It depends, of course, on how the firm's capital is made useful during the year, whether Interest Account shows a loss (by lying idle in bank or office) or lent out at interest among customers, if not invested in stocks or produce.

We have seen entries for the different accounts, called "living" and "dead." The living may be by hundreds; the dead are generally limited to—

(1) Charges Account, comprising porterage, carterage, warehouse rent, and small items.
(2) Insurance (fire and marine).
(3) Brokerage Account.
(4) Commission Account.
(5) Interest Account.
(6) General Merchandise Account.
Cotton Account.
(7) Cable expenses.

The writer has availed himself, in the description of the treatment of a "spot" transaction, of Lesson Notes, kindly placed at his disposal by Mr. Alfred von Arnim, whose experienced services (after residence for several years in the U.S.A. as well as in Liverpool) for instruction in Commercial Practice (cp. next chapter) are engaged by the authorities of the City of Liverpool School of Commerce.

An order may be executed, by the same firm as supposed above, for 100 barrels of cotton *to arrive*, say "October delivery" (three months ahead). This kind of business is carried on under very varying conditions and agreements between houses here and abroad. But there is nothing special to note as to the book-keeping incidents in this class of business.

For accounts in export trade reference may be made to Nixon's *Advanced Manual*, chap. vi. and chap. xii. as far as p. 274 (Manchester piece goods, yarn, etc.).

Reserves, reserve funds, sinking funds, goodwill, depreciation, insurance, apportionment, partnership, taxation, municipal loans repayable by instalments, reconciliation statements, etc.—all these topics are admirably treated in Lisle's larger work.

Mr. Gérard van de Linde's *Book-keeping* comprises a section on Banking Accounts (cp. Nixon, chap. xiii.).

The attention of students specially concerned with book-keeping may be called to the papers read before various C.A. Students' Societies of the United Kingdom. A few of those contributed by practitioners at Birmingham and elsewhere may be mentioned as having come under our notice. In 1894 were read papers on "Newspaper Accounts" and on "Cost and Production Accounts," by Messrs. Impey and Whitehill respectively; in 1896–7, one by Mr. Caldicott on "Chartered Accountants as Experts in Commerce and Manufactures"; in 1897–8, a paper by Mr. van de Linde on "Audit of Banks and Mercantile Firms"; and in 1898–9, one by Mr. Mullard on "Stock Exchange Accounts."

For the subject of *insolvency*, see the pupils' Manual, chap. xxix. *ad fin.*

A chartered accountant practising in London has thus stated his views to the author as to the work of an "articled clerk":—

"The most useful work that a new clerk could be put on to do would be to prepare for the clerk-in-charge manufacturing, trading, and profit and loss accounts and balance sheet *in blank* from the previous year's accounts—the principal clerk would, of course, fill in the figures—and the accounts thus prepared would form the office draft copy from which the fair copies would be made. This work would teach a junior much with regard to forms of accounts, and would cause him to inquire into the reason why a certain item was shown in a particular way. The principal clerk would, of course, give the explanation.

"The copying of legal documents, although irksome, is most useful as giving the youth some knowledge of legal terms.

"A junior's ordinary work is to call over postings from a subsidiary book, the principal clerk taking the ledger, and the checking of additions. As he goes on he will be allowed to check and examine sales-ledgers' balances.

"The above remarks apply to Accountancy pure. In Secretarial, Bankruptcy, Liquidation, Receivership work he would write letters and keep the documents endorsed in order until he became capable of writing up the books."

LITERATURE.

For Pupils:—

Thornton, *Book-keeping for Elementary Schools.*
,, *Primer of Book-keeping.*
Nixon, *First Lessons and Exercises in Practical Book-keeping.*
,, *Advanced Book-keeping.*
Lisle, *Elementary Book-keeping.*
McAllen, *Principles of Book-keeping.* Methuen.
Ireson, *Text-book of Book-keeping.*
Dicksee, *Book-keeping for Accountant Students.*
Sutherland, *Manual of Commercial Instruction.*
Whitfield, *Introduction to Commercial Science.* Lessons xiv., xxix.

For Teachers and Advanced Students:—

Thornton, *First Lessons in Book-keeping.*
,, *Manual of Book-keeping for Students.*
Lisle, *Accounting in Theory and Practice.*
Gérard van de Linde, *Book-keeping.*
Jones, *Guide to Professions and Business* (pp. 89–92).

For Business Men and Others :–

Thornton, *Book-keeping for Business Men.*
Garcke and Fells, *Factory Accounts.*
Burton, *Engineering Estimates and Cost Accounts.* Manchester: Technical Publishing Company.
Fisher, *Railway Accounts and Finance.*
Norton and Feasey, *Newspaper Accounts.*
Allen, *Book-keeping for Publishers.*
Fox, *The Company Secretary.*

BANKING ACCOUNTS.

Gambaro (*Lessons in Commerce*), Nixon, Van de Linde. Special sections.

BANKRUPTCY.

Farrer, *The State in its Relation to Trade.* Chap. vi.
Board of Trade Bankruptcy Annual Report.
Gambaro. Chap. xiv.
Edwards, *Commercial Law.* Chap. xii.

AUDITING.

Pixley on Auditors.

CHAPTER XI

MERCANTILE OFFICE WORK

"I could not say whose mind is, or should be, more enlarged than the mind of a genuine trader."— GOETHE.

ACCORDING to the treatment in the present work of the subjects that must be considered in the chapter upon which we now enter, will no doubt be the measure of the approval given it in general by readers representing respectively the first and second schools of opinion spoken of in the opening of the Introduction. Indeed, the most that one can hope is to be able to draw somewhat more closely together these opposed factions by encouraging modification of their incompatible sentiments; and this would mean considerable acquiescence in each camp of what we believe to be the only sound and practical point of view from which to regard Commercial Education. Something may be done to remove heartburnings of the rigidly conservative, and to apply the drag to some proposals of the revolutionary school.

The Contract of Sale and Purchase, the incidental relations of Principal and Agent, the general mechanism of the Market, and mercantile terminology have already been referred to in chapter vi. above, after being outlined in the writer's *Introduction to Commercial Science*, which may be consulted for the understanding of any expressions used here without explanation. Amongst the classifications of Traffic mentioned in the earlier chapter were its two leading divisions of Home and Foreign Trade, both of which must engage our attention for the purposes of this section. Some who receive commercial instruction are destined to occupy themselves afterwards with

the Domestic department alone; the concern of others will be mainly, if not entirely, with the external trade of this country, and some of such perhaps will enter upon a commercial career abroad. There is still a third set of school pupils, who will engage in Industrial business, and these, too, may have to choose between a career at home and one abroad. Hence, some general knowledge, if it be only on the side of Theory, is desirable for all before they specialise in business study; and as far as one of the above named aspects of trade demands more attention than the other, it is certainly the HOME Trade (cp. chap. x.). As this, besides, is happily the simpler and less technical of the two, one may arrive at the conclusion that, so far as regards the study of it on the side of Practice, it is in every way that which suits beginners, which they can follow in the mother tongue alone. Our first proposition, therefore, under the present head is that, for each grade of school described in the first chapter, instruction in Business Work, limited to the last year of the pupil's school career, should be given in the methods of the Home Trade, and in such alone; those applicable to Import and Export Trade being left for the commercial college. At school the practice of correspondence should take the form of dictation of model letters for the lower rates of shorthand speed practice; but the writer entirely discountenances the composition by the pupils themselves of such letters; they should simply reproduce in business-like longhand those of which they take shorthand notes.

The method of first instruction should be on the lines of that recommended for Physical Science by Professor Miall (chap. iii.); and teachers here should take to heart what he says as to bookwork: "A boy who has worked at nothing but books and theories until he is sixteen or seventeen will never make a workman" (Barnett, p. 249). As far as manuals are concerned, however, the needs of higher elementary pupils are amply met by Jenkins' *First Guide* (copying and transmission of letters, indexing and filing of letters and papers, etc.); whilst other schools could not do better than make use

of Hooper and Graham's *Home Trade*, where would be found, in addition to such mechanical work as that already referred to, forms of documents used in Purchases and Sales, hints on Correspondence, Banking, etc. The explanations given are all that the present teachers, who are without actual office experience, need for their guidance; and where they might otherwise go astray, the manual itself will keep them right; but they should scrupulously prepare their lessons. Writers of such books have for the time being to keep in view that they have teachers themselves for pupils; but all trust that such a state of things will be of short continuance.

"Engineers," says Mr. Miall, "believe that a boy who has worked at nothing but books and theories till he is sixteen or seventeen will never make a workman." So we believe of the order of students of the same age with the like experience in the field of commercial instruction. But here, as Mr. Stewart claims for science, lessons in theory should be in advance of practical work (Spencer, p. 214).

We may now consider the special functions of a Commercial College, and here meet for the first time with a "Commercial Bureau" (following the French designation), called in America a "Sample Office," in German-speaking countries a *Musterkontor*, in Italy a *Banco Modello* (cp. Introduction). As this institution is concerned with foreign trade in particular, and therefore, for English-speaking countries, finds its true home at seaports, we shall introduce the reader to the "Commercial Practice" of the Liverpool School of Commerce, premising, however, that the Commercial Bureau as here defined makes its appearance in the student's second year, towards the end of the whole course of teaching adopted in the "bureau" of the School.

A. ELEMENTARY Class.—About sixteen years old. The previous knowledge of the young men varies widely: some have visited their father's office already, and have "picked up" information, such as the method of copying letters by machine, copying invoices, account sales, or other commercial documents.

If the class is quite ignorant of the most elementary commercial knowledge, as will probably be the case for some while longer, there are books which serve as guides, explaining nomenclature gradually and *pari passu*. This part of instruction must not, however, be imparted as a vocabulary or set of grammar rules in a foreign language. Unless taught in connection with practical acquaintance with the work to be done, and previously explained by theory, all time spent would be thrown away. A fair knowledge of elementary arithmetic must be possessed by the student, otherwise no progress can be made in the time allotted to the work. Experience has shown that the following course can be safely adopted:—

Explanation—unless teacher is empowered to assume that such knowledge has already been acquired (chap. x.)—of (1) an "Invoice"—statement of cost of goods *bought*, *plus*, etc.; (2) an "Account Sales"—statement of goods *sold*, *minus*, etc.

A number of exercises are necessary to make a student who is a novice in these forms of documents fully understand these two important forms of account. The most common error is made when in an invoice a certain *discount* has to be *deducted* from the price, say 1, 2, or $2\frac{1}{2}$ per cent., where the student will *add* it.

In connection with these exercises it has been found necessary to introduce the teaching of percentages, of whole figures, of fractions, and of decimals. This branch of arithmetic is seriously neglected in ordinary schools (cp. chap. iii.), so that very few students can calculate quickly and correctly the simplest problems in percentages. The merchant is so accustomed to calculate his profit or loss on any transaction by percentages that the student must practise this branch of arithmetic long, and in all possible combinations.

The calculation of interest at different rates per annum follows next, but no compound interest is taught—not being used in Commerce—beyond a casual explanation. The common practice is to take out an Account Current every six, or at latest every twelve, months. The explanation of "red interest" follows as a matter of course.

Then comes the calculation of average due-date of the proceeds of a quantity of goods, say

£500 due 1st March,
£450 „ 15th April,
£300 „ 10th June,
£250 „ 1st July,

£1,500 (When average due?),

which is very appropriate at this point. The explanations must be perfectly clear, otherwise the practice will soon be forgotten, as experience has proved.

This is followed by explanation of the so-called "Cash Statement." Now in practice almost every trade has a different way of reckoning, because the terms of sale vary in each. Thus, with wheat the terms may be within "seven days and three months," whilst with cotton an invoice ought to be paid within ten days from date of purchase less 3½ per cent. discount from the first sum; but, as very often final payment of the balance may be made after the lapse of the ten days, there is red interest to be calculated. As this calculation is no doubt difficult and unusual, it is taught at once, and is considered a good exercise.

The student will then be able to take an invoice in hand, and familiarise himself with the difference between gross and nett weight. Each article, of course, has a different calculation. In wheat there is no tare, except when it is sold in bags, and in California not even then; coffee, sugar, and rice have different tares; whilst cotton has the most extraordinary calculation of all. It would be useless to give examples, as the teacher is expected to be fully cognisant of the different "usances."

With a fairly intelligent and industrious class it is expected that the foregoing subjects can be fully taught in one college year, if eight lessons a week be assigned to them.

During the whole of this period the pupil should have applied his knowledge of foreign languages to the work here

done, the language teachers adapting their syllabus to that of the bureau teacher.

B. ADVANCED Class.—The teacher will proceed with the operations and calculations of the import of one article. The student will have to learn the many different ways in which orders for produce are given. It is best to take first the article which is for the purposes of the particular port the most important.

Let us take Cotton, as done at Liverpool. An order may be given :—(*a*) Free on Board (f.o.b.) in the foreign currency (cents, etc.) and weights. Formerly the order went simply in the foreign currency, weight and all local charges and commission. (*b*) "f.o.b." and including the charge for Freight to Great Britain—all in British currency. This is called "Cost and Freight" (c. and f.). Thus :—

100 *bales Cotton, weighing* 50,000 *lbs.,*
@ 4*d. per lb., less freight* . . £ : :

Here, as freight is not paid for until after arrival on this side, the item is deducted in the invoice, and the nett amount only is charged and drawn for. (*c*) An order termed "Cost, Freight, and Insurance" (c.i.f.), made out like No. 2, but the insurance (of invoice amount plus 5 per cent.) must be paid for by the shipper, and the necessary certificate sent along with the other documents to prove that insurance has been effected. (*d*) "c.i.f." (insurance often optional) and 6 per cent. loss in weight guaranteed, in British currency. The invoice has to be made out as follows :—

100 *bales, weighing* 50,000 *lbs. gross*
Less 6 per cent . 3,000
47,000 *lbs. nett @ say 4d. per lb.* £ : :
Less freight . . . . . : :
£

Insurance covered in Company.....
for £... (or $...) at ... per cent.
as per certificate attached.

When the student has fully mastered this important part of commercial work the teacher proceeds with the question, How does the foreign buying agent get paid for the invoice which he has made out to his principal in England or Europe? By Bills of Exchange through the medium of a banker. This chapter of Commercial Science is a long one, but if clearly explained it loses its terror for the student. The documents, viz. Bill of Lading, Insurance Certificates, and triple sets of Bills of Exchange, are now shown and fully explained. The usual 60 d/s, 30 d/s, 3 d/s, on demand, and Cable-transfers, are all made out. Moreover, the profit of a banker, by buying a long bill and selling a short-dated bill, is explained.

The invoice has now been drawn against (mostly on another banker, on this side or in Europe) and accepted by the latter, by order and for account of the merchant who is the importer. The safe arrival in Liverpool (Havre, etc.) is assumed, and the teacher explains step by step the different processes necessary to enter the goods, pay the freight, arrange with the banker who acted as intermediary in the transaction, the landing of the goods, storing, fire insurance, weighing and delivering after a sale. There are mostly fixed charges for every item, and no difficulty exists on this point. The netting of cotton has been taught previously, as well as the terms of payment.

It is well if the student makes out (1) a calculation as to what charges have to be added to the invoice amount in order to determine the cost of the article "to sell on the spot" (*prix de revient*); (2) to reverse the operation, taking the selling price first (found previously), and deducting all the charges incurred from the gross proceeds. If at the end he finds that the nett proceeds are equal to the invoice amount the calculation made under (1) will be correct.

The student gradually learns, by taking as basis the cost and freight term, or "c.f.," and insurance, or this last plus 6 per cent., how much he has to add mentally to find out the selling price of the article at once; in other words, whether he *can buy* an article on the basis of "c.i.f." or anything else, and

sell it on a different basis again, viz. as Spot cotton, or on other conditions.

A very interesting calculation can follow this. Let the students find out for themselves whether any order given in English terms to an American house has a chance of being executed, or, to put the matter still more plainly, What price can the American agent pay in America if he receives an order for, say, 100 Bags "c.i.f." and 6 per cent. at $4\frac{1}{2}d.$? Of course, primarily, it is the business of the receiver of such an order to be able to calculate this; but the European importer also ought to know it. He will thus be able to follow more closely in his calculations whether prices in the shipping ports go up or down; and this by watching Freights, Exchanges, Insurance Rates. In fact, this calculation comprises almost *all* the previous calculations, and is applicable to any other article of commerce.

In connection with any import for the merchant's own account, instruction must be given in the usages and safeguards pertaining to consignments from other parties. A considerable advance, it should be stated, is generally made to the shipper (consignor), according to the high medium or low standard of prices current at the time, also to some extent according to the financial standing of the Shipper.

The Banking facilities required by an Importer may now be fully explained; charges and interest by the Banker; Rebate for payment of an acceptance before maturity; the growing custom to make use of the Banker for all Imports; and Credit operations generally.

Amongst minor items will next come the question of Marine and Fire Insurance; the settlement of a claim or loss by sea water, or by fire and water on land. As a particular item, the claim for country-damaged cotton should be explained.

Although the teaching of book-keeping by double entry and the making up of current accounts are in other schools generally taken separately, it is found that, at the end of a combined course, such as we have just sketched, the students

know the principles of that method already sufficiently for local requirements. They also understand loss of Exchange, by having, say, a sterling account and a dollar account with New York, and are not puzzled over it as some of the actual principals in business around them.

All that is requisite to know of the Metric System and of Currencies in connection with Exchange must be taught as it arises. Reference may be made to an Appendix for a transaction fully worked out by one of the pupils.

When the class is sufficiently numerous (a dozen students would do) the whole of the operations of an import of any article should be performed in succession by each student. Thus he will be Shipper, American Banker, or Shipowner, Insurance Broker, Cashier, Customs Clerk, British Banker, Broker, Merchant, in turn, and thus be able practically to perform the duties of a clerk in any merchant's office at various ports, not only at home but abroad: he would not be at a loss on entering an office at New York as an employee, and, given a sufficient knowledge of French, he would be at home in the work of one at Havre.

As a final exercise of their second year's work, the students will start a Merchant's Model Office, with three partners and a certain Capital; will execute orders from many quarters; will draw and accept bills; will import, and sell on the spot, cotton, wheat, flour, etc. After three months' fairly large transactions the books are closed and made up. Trial Balance will be succeeded by Profit and Loss Account, showing final balance to the good; and division will be made among the partners according to the terms of partnership.

Throughout their second year the language studies of the students should have continued to take in all the work done by them in the "bureau," with a yet larger infusion of dialogue.

Such is an outline of Commercial Practice as it is understood in the light of local requirements at the Liverpool school, for aid in the preparation of which the writer is indebted to Mr. Alfred von Arnim. The following description, from a newspaper report, of what will be the last stage for

day students, when their number admits of its taking such form, was given by the Chairman of the Board (of the firm of Hornby, Hemelryk, and Co., Cotton Brokers), at a meeting in Leeds of the Yorkshire Commercial Education Association.

"I intend to try and give a picture of the 'commercial bureau.' In order to make it perfect, I consider it essential:—(1) That the class should be fairly large, but not overwhelmingly so. I should suggest a class of twelve or fourteen. If you have a greater number of students you must divide them, and appoint two masters. (2) That each student has a knowledge of two languages besides his mother tongue, sufficient to enable him to write a fairly correct business letter in each. (3) That the students are all able to make out an invoice, an account sale, a bill—whether on a bank or on a private firm—are competent to fill up a bill of lading, an instruction for marine or fire insurance, a discount note, a brokerage or commission account, etc. (4) That the students are able to keep books by single or double entry, and to make up an account current. That they understand the method of converting English money into foreign currencies, and be able to go, so to speak, from one foreign market to another, and compare the value of money, such as it is understood, with the fluctuations of the money market at home. If we can assume that these conditions are satisfied, the actual teaching of the bureau can be commenced.

"The man who is to be at the head of this bureau should, if possible, be one who has had experience, either as principal or in a subordinate capacity, in a fairly large business, one also who is lucid in his teaching and explanations, quick at mental arithmetic, and thoroughly versed in the various world usages of trade. He begins by dividing his class into sections. He tells A and B to consider themselves for the present as cotton exporters in the United States, C and D are steamship owners, E and F are importers in Liverpool, and G and H are bankers in London. Then he appoints the remainder of the class as examiners, or critics, and opens the work. A and B are told to buy 500 bales of cotton in the interior of Texas. They are informed what to pay, on what conditions, how to handle, where and how to insure, receive and ship the cotton. They are to make out all the documents necessary for the purpose, draw up all the cables, write all the letters to Liverpool and London, borrow from their

bankers, and repay them by bills on G and H, London. C and D, the shipowners, are instructed to do their share of the work—draw up charter parties, make out bills of lading, and freight notes. The teacher will suggest certain difficulties likely to be encountered, and familiarise them with such incidents as are connected, for example, with damage to ship or cargo, bottomry, demurrage, jettisoning, etc., and a thousand and one other incidents connected with the working of a steamer or sailing vessel. Then E and F, the importers, are asked to do everything connected with the buying of cotton in America, and the selling of that same cotton in Liverpool. It is their duty to request the shippers to draw on their bankers in London; to instruct, by letter, the same bankers to accept, to pay freight, dock and town dues, cartage, brokerage, etc.; to calculate at what price they can afford to sell these 500 bales to a spinner or his broker in sterling money, in English weight, and subject to the usual tares and draft, etc. Each of these three firms—Messrs. A and B, Messrs. C and D, and Messrs. E and F—have to do everything, from the first operation to the last, connected with this mercantile transaction. They have to make the necessary entries into their books, write up the ledgers, make out the invoices, settle the payment, and finally draw up the balance sheet, showing profit and loss account. The remaining students are told off to examine accounts, to check the statements of each firm in turn, and to act as censors; by so doing, under the guidance of the head master, they learn the operations of each branch themselves. When the three firms named, by way of example, have been conducting operations of a similar nature for some time, their positions are reversed; the shipowner becomes an importer, the latter is turned into a shipper, and they who acted as shippers become steamship owners. What I have described is actually carried out in practice in a number of commercial schools on the Continent with the greatest success."

It will be seen that in the Liverpool school all the students of one class do the same work contemporaneously throughout the first year, and for most of the second year, on the lines, so far, of the schools at Leipzig, Vienna, and Antwerp; whilst for a small fraction of their second year they may have different functions assigned to them, as done on a larger scale in the United States, at Prague, and Lyons. The advantages of the

two systems are thus combined with a minimum of disadvantage. Given a good teacher and effective discipline of a not too large class, the Model Office work need never be puerile or superficial. The qualities one may look for in such a teacher were well described by a speaker at the Venice Congress as not possessed in their entirety by any. "But," M. Strauss added, "he must have science, experience, and the teaching faculty." Of course a certain amount of individual attention must be given, however much it try the teacher's patience.

Certain schools in the United States and in Italy correspond with each other; elsewhere this practice is not favoured, as it has several drawbacks.

Some writers, as Courcelle-Seneuil (book iii. chap. ii. pp. 314–19), discuss precepts for buying and selling, with which the teacher would do well to make himself acquainted; and he should use a judicious selection in the instruction of senior pupils.

The view expressed by Herr Reinicke in the Journal of the German Association (Nov., 1899) that Arithmetic, Practical Book-keeping, with its local colouring, and Correspondence, should all be taught by the instructor in Mercantile Practice, has always been the present writer's own opinion; and such is now the practice at the Liverpool school. It secures uniformity. The more general theoretical side of Arithmetic and Book-keeping we have discussed elsewhere; it remains that something more should now be said as to Correspondence.

The student is supposed, by an earlier chapter, to have had this brought before him in its simplest, most general form, somewhat in the manner presented in the writer's *Introduction* (Lesson V.), or in his special Manual. The latter is recommended on the Continent for advanced students, but as far as English readers are concerned the book was designed rather for beginners, whether students or intending teachers; and the writer would commend to the actual teachers, for reference at the present stage, Mr. Coumbe's very useful collection of forms, which have a general business ring about

them, very different from most specimens of English letters which pass current on the Continent. The writer's own method may be seen in his special Manual, which can be applied to correspondence in French, German, etc.

In the chapter on the Teaching of Languages study of Foreign Commercial *Correspondence* as a school subject has been discredited. It cannot be learnt by school pupils in a systematic way—that is, as part of a continuous business process; and to study the run of detached letters is as unreasonable as in language work to use detached sentences as exercises on grammatical rules, instead of continuous passages. The study of Foreign Commercial Correspondence should come in with Mercantile Practice. The student will be guided somewhat by the line of business in which he hopes to engage which language he will cultivate most. In other respects, doubtless, French and Spanish have special claims, having regard to the general neglect of other languages than their own by Frenchmen and Spaniards. But increased Commercial Education in France will modify this state of things.

In the first year of college work use may be made of Dictation of model forms; but this should give place in the second year to letters composed by the students themselves, although the teacher should afterwards supply them with his own compositions for comparison. As far as can be, manuals should be used which reproduce MS. letters showing foreign style of handwriting. Such are: for German, Levy's; for French, Rolfs'; for Spanish, Vogel's.

GERMAN is wanted especially in the cotton (Jones, p. 116), woollen, machinery, coal, sugar, timber, and chemical trades. We have to remember that our best customer in Europe is Germany. FRENCH comes in for textile and metallic goods, coal, silks, brandy, wine, and sugar. France finds her best customer in Great Britain. SPANISH is needed for cotton goods, linen, iron and coal, coffee, wine, fruit, lead, iron ore, machinery, indigo, and dye woods; ITALIAN for cotton goods, coal, olives, hemp, olive oil, fruit, and sulphur; PORTUGUESE for cotton, woollen, and linen goods, hardware, wine, cork,

coffee, and raw cotton. We may repeat here an observation made in a pamphlet nine years ago. "Many American Commercial Colleges have gone too far in limiting their language instruction to German, as though it was the only language worthy of consideration."

Examination papers in Commercial Practice, English Correspondence, French, German, and Spanish are included amongst those at the end of the volume.

LITERATURE.

For Pupils :—

Whitfield, *Introduction to Commercial Science.* Chaps. xx.–xxii.

Nixon, *First Lessons in Office Work.* Heywood.
Jenkins, *First Guide to Office Work.*
} These little books contain woodcuts of office requisites.

Jackson, *Primer of Business.* Chap. ii.

Hooper and Graham, *Modern Business Methods.* Part I., Home Trade. Part II., Import and Export Trade; Facsimile Modern Business Forms.

For Teachers :—

Courcelle-Seneuil, *Manuel des Affaires.*

Atti del Congresso Internazionale . . . tenuto a Venezia, 1899 (pp. 231–96).

Congrès International . . . tenu à Paris, 1900, Rapports etc.: sur le Bureau Commercial, pp. 302–49, 588–91.

Musterkontore, by Swet, in *Zeitschrift, u.s.w.*, June, 1898 (pp. 103 ff., 138 ff.).

Business Colleges, by Kipp, in *Zeitschrift, u.s.w.*, February, 1900 (pp. 347–51).

Hemelryk, *Commercial Education*, Paper iii.

For General Readers :—

ARITHMETIC.

Pitman's Complete Commercial Arithmetic.
Crittenden, *Commercial Arithmetic.* Philadelphia, 1899.
Howard, *Art of Reckoning.* Teacher's Edition.
Taylor, *Commercial Arithmetic.* Methuen.
Merten, *Manuel de Sciences Commerciales.* Ghent.
Feller and Odermann, *Das Ganze der Kaufmännischen Arithmetik.*

BOOK-KEEPING.

See Literature for chapter x.

CORRESPONDENCE.

Fiedler, *Didaktik der Kaufmännischen Korrespondenz.* Olmütz.
Nixon, *First Lessons in Office Work and Correspondence.*
Jenkins, *First Guide to Commercial Correspondence.*

English.

Adam, *Commercial Correspondence.*

Whitfield, *Précis Writing and Office Correspondence.*

Coumbe, *Commercial Correspondence.*

Greenwood, *Commercial Correspondence and Business Practice.*

Rolfs, *Englische Handelsbriefe in genauer Wiedergabe der Originale.* Köln.

German.

Bally, *German Commercial Correspondence.*

Levy, *Recueil de Lettres allemandes d'après les Manuscrits.* Hachette.

Remschel, *Handelskorrespondenz in Englischer u. Deutscher Sprache.*

Montgomery, *Deutsch-Englischer Handelsbriefsteller.* Stuttgart.

Odermann, *Handelskorrespondenz*, with French, English (Montgomery), and Italian notes.

Eitzen, *Worterbuch der Handelssprache Deutsch-English u. Engl.-Deutsch.*

French.

Bally, *French Commercial Correspondence.* Methuen.

Carroué, *Commercial French.*

Rolfs, *Französische Briefe in genauer Wiedergabe der Originale.* Köln.

Odermann, *Deutsch-Französisches Wörterbuch.*

Spanish.

Vogel, *Spanische Handelsbriefe mit genauer Wiedergabe der Originale.* Köln.

Heredia, *Manuel del Dependiente de Commercio.* Madrid.

Portuguese.

Gloeckner, *Portugiesische Handelskorrespondenz.*

Italian.

Gloeckner, *Manuale de Corrispondenza Commerciale.*

Russian.

Hauff's *Russische Handelskorrespondenz.* Vienna.

For Self-taught Students, as also Elementary School Pupils:—

Pitman's Business Training; Business Terms and Phrases; Exercise Books of Facsimile Commercial Forms; Commercial Copy and Exercise Book; Office Routine Copy Books.

Whitfield, *Guide to the Effective Study of Modern Languages for Business Purposes.* Hachette.

CHAPTER XII

THE FORMATION OF CHARACTER, AND THE CONDITIONS OF SUCCESS

"Why have the fighting classes the monopoly of the motto, 'England expects every man to do his duty'?"—ZANGWILL.

ALL that has gone before has of necessity regarded those undergoing education at different periods of the spring-time of life; but now, when something of a survey may be taken, one is reminded of the words of Edna Lyall: "Character is not ready-made, but is created bit by bit and day by day." The *die-stamp* begins to be impressed from the first. Trade, as Mr. Smiles has said, "tries character perhaps more severely than any other pursuit in life." When, it may be asked, can the preparation for the test so well take place as from the beginning to the end of school-days? Commercial Education might seem to foster that which is sordid in human nature; so that our last words—those which should be the most forcible—shall concern the most important part of the chart which we desire to see placed in the hands of those in whose special interests the book is written. While endeavouring to safeguard the **intellectual** character of the instruction proposed, the writer would give the utmost weight to the claims of the **moral** side of the training of all alike.

Before offering any specific remarks on the duty in this direction of every educator, we may observe that the course of training that has been submitted for consideration, so far as it concerns the material aim in view, must be regarded as of merely relative value. Much will depend on the soil wrought upon, and the use made of advantages, whether

success in life will be aided by the process. The Chairman of the Royal Commission on Education, himself an ardent advocate of Commercial Education, who has been also President of the Board of Trade, in addressing the delegates of the Associated Chambers of Commerce at their spring meeting in 1897, voiced the conviction of all whose views are sound on this subject when he spoke as follows: "A man of the highest capacity would make way without education; a man of the lowest capacity could not be made anything of by education; but between these two extremes there lay a class which had never failed to profit by good training, but who would have come to comparatively little if they had not received that training. It was for that majority they pleaded, to whom education made all the difference, and it was from that majority that young men must be trained for their business houses." This opinion, expressed with authority by the Right Hon. James Bryce, seems to have been fully shared by one of the notable self-made men on the other side of the Atlantic. This may be gathered from a conversation between Commodore Vanderbilt and Dr. Deems (*e.g.* "I would give a million dollars if I had your education, Doctor"), which resulted there and then in the multi-millionaire's decision to found the Tennessee University (Croffut, *The Vanderbilts and the Story of their Fortune*, pp. 137 f.).

The endowment of its national character, as that has been read by a foreign observer of world-wide fame, is a rich heritage of the English people, which the type of "Commercial Education" represented in these pages is designed to maintain amid all social and economic changes. One of the founders of that European empire to which we have had occasion often to refer, who was known in 1849 as Herr von Bismarck, in a speech before the second Prussian Chamber extolled "English fear of God," "English reverence for Law," besides the "common sense" regarded as a feature characteristic of our people and the further element of "ability to form a decision, more widely distributed among" them, the great statesman affirmed, than among his own countrymen.

That Commerce, according to a predictive statesman of long ago, would be "regenerated and purified" (see Professor Driver's *Isaiah and his Times* on the Vision in chapter xxiii. of the Hebrew classic) is an ideal which comes home to most British traders. Cp. the remarks of Sir A. Rollit at the Church Congress of 1890, held in Hull. Moreover, it has been said that what Religion enjoins as right, Economics recommends as expedient.

The observance of the principle of submission to recognised Authority is the guarantee of Liberty. The "natural liberty," a thing supposed by the school of moral philosophy to which Adam Smith belonged to be of spontaneous growth, has little to say for itself in the light of Ethnology, which has shown how little freedom of action savages possess. We must therefore relegate Hutcheson's idea to the same category as Rousseau's *Social Contract*. This is of importance with regard to **Free Competition**, which has been based on a fiction. Free Competition is a social development in which Law must have a voice. It is for the teacher of the *Life and Duties of the Citizen* (see Evening Continuation School Code) to burn this into pupils. This branch of instruction we would recommend as introductory to Economics, so that pupils beginning a specialised course at the age of fourteen would, for the first year, use the form allotted to that in proposed Time Table head for "Citizenship" (App. i. B), and those commencing at fifteen would use the other form for this in like manner (App. i. A).

Is the old learning, still called in Scotland the "Humanities," more formative of character than the new? Each will always have its advocates: there is much to be said on both sides. One like the present writer, whose early education was neutral —for he was taught Greek and Latin contemporaneously with German and Book-keeping—will generally ask, from his own experience, for a blending of the two systems, and arrange for the education of his own sons accordingly. This book, as written by an Englishman, of course represents a compromise. There was some justice in Carlyle's censure of the traditional

education in upper schools: "What a farce it is," he wrote, "cramming dead languages into the majority, quite irrespective of what their duties in life will be. . . . They call it developing the mind, as if any quantity of such inanimate teaching could foster the growth of anything." Moral contamination has to be avoided, by use of expurgated editions of certain authors, such as Aristophanes and Juvenal, if not Horace; whilst no one would think of turning to account educationally the originals of such books as Goethe's *Sorrows of Young Werther*, or Zola's *Money*. The late Father Clarke told the writer when at Oxford that, in his youth at school, boys after reading in class expurgated passages from the classics repaired as soon as they could to the library in order to look up the parts left out. School pupils, beyond all controversy, do need humanising education, which brings out and trains "personality." Who is going to conceive of the subjects treated in this book in any contrary light?

Taking what is common to the old and the new system, there will be general agreement that Work is the highest educative force in the conception and formation of good habits: this must underlie all. Qohéleth says, "Whatever thy hand findeth to do, do it with thy might" (ix. 10), to which Dr. James Martineau, from his pulpit in Liverpool, could add, "Half the actions of mankind are for the diminution of labour; yet labour is the thing they most universally respect." We presume, however, that no reading of Carlyle or Ruskin would have restrained the young man who, a few years ago, committed suicide "because he was born to be a *man*, and," of all things, English reader, "was condemned to be a *grocer*." What school training failed to do in his case subsequent influences could little make up.

The precept of the old biblical writer was well worked out by a writer in *The Young Men's Review* (September, 1890), in an article on "Thoroughness," where it is said that some seem to have a genius for it; that the difference between "the few who do something and the many who don't," the secret of success on the part of those so often characterised as "born to

succeed," lies in aptitude for the exhibition of this priceless quality possessed by men wrongly deemed to have extraordinary natural talent. "It is clearly one of those endowments of nature which all, or nearly all, possess in some degree, and may develop by use."

Connected with this is Self Reliance: as many young men in Germany read translations of Mr. Smiles's books as in England the originals. Goethe would have us, as much as possible, rule circumstances, not to allow ourselves to be ruled by them (W. Meister's apprenticeship, book vi.). Benjamin Disraeli, before he preached to the Glasgow students to have self-knowledge, and to read the *Zeitgeist*, had translated his creed into practice. "The spirit of self-help," in particular, Mr. Smiles has observed, "has in all times been a marked feature in the English character, and furnishes the true measure of our power as a nation."

Every word of Mr. Smiles's remarks on the compatibility of Business with "the pursuits of genius" should be read by boys who have imbibed a prejudice against any commercial career through exposure to depreciatory remarks on Trade by people of imperfect education (*Self Help*, pp. 264-66).

Progress and excellence are being regarded as specially American virtues, although in England we think ourselves unsurpassed in progressive tendency. What the energetic American Consul at Liverpool lately remarked to the writer, that "Englishmen ask whether a thing will do, but Americans whether it can be improved," is very suggestive, and English schoolboys, with whom the future lies, should be led to profit by such criticism in applying the lesson to the way in which they work at school. Here no distinction of school exists: those in elementary schools who will become operatives should learn what "good work" is before they reach the fifth standard. This is, of course, a question of concentration, as well as of facing difficulties.

The training of *conscience* is indispensable for every step of the way. Jew and Christian, Catholic and Protestant alike do homage to the "Ten Words," of which the Eighth, Ninth,

and Tenth press for special recognition in Commercial Education, if one is to know the importance of Honesty, of Truthfulness, and of Contentment.

In the first place let us think of *adulteration* as a notorious violation of honesty, which the secular law has specially to combat. The vice has many forms besides those with which newspaper readers are familiar as coming technically under legal prohibition. The legislator does not seek to repress practices to which producers resort by endeavouring to put on the market, as a mere matter of "competition," something cheaper than one's rivals do. The demand for genuine cloth of the Border woollen mills has relaxed through production of Yorkshire "shoddy" goods not represented as such; and here there is no remedy. In general, the laxity from a moral point of view has been noticeable in every country of the West as well as in non-Christian lands, not merely in regard to substance and quality, but also, even in our own day, with respect to measure or quantity, so that in the United Kingdom one's pupils may take an examination for appointment as "Inspectors of Weights and Measures." Again, the Common Law bears on whether a dealer is bound to reveal a fault in an article ("*caveat emptor*"), whilst ethical considerations come in for the determination of whether it is right to sell a thing for more than it is worth. A high standard should be inculcated in respect of uncommercial debt as obtaining between retail tradesmen and the general public (cp. chap. ix.). "Men of trade," said old Bishop Hall, "take it ill if customers which are on their books go for their wares to another shop." The general question of Money, being a large one, will be dealt with separately. Under this first of the golden rules referred to comes the wrongful use or imitation of others' *trade marks*. German cutlery, it is said, failed to find a market in South America until it was stamped (we hope not by any readers of *Debit and Credit*) with a close imitation of a British trade mark. With regard to general integrity, Professor Adams, in speaking of the standard observed by railroad managers in the United States, remarks that "Honour for its own sake

and good faith, apart from self-interest, are, in a business point of view, symptoms of youth and effective education" (*Railroads*, p. 194). There is no ground for saying the same of our "insular" ideas, which are sometimes *happily* inelastic. Again, boys should be told that one should no more take advantage of a native of the Niger valley in barter of calico for gold dust, than of one at home whose imperfect education in figures disables him from disentangling the complexity of any account. People who have taken a crooked course and then blame arbitrary morality for their failure have broken down from real *incapacity*.

Next, do not fulsome *advertisements* make light of the Ninth Commandment? So also what Defoe called "shop rhetoric"; but, as he says, "Much of it is owing to the buyers: they begin the work and give the occasion." Cp. chap. xx. 14 of the Book of Proverbs.

The last section of the Decalogue brings before us in its development the whole question of Money, now regarded ethically, which may be introduced by some pregnant words used by Lord Avebury, himself a prominent banker, when Sir John Lubbock. Speaking at the Heriot-Watt College in 1889, on the choice of a career, he said, "Money, like fire, is a good servant but a bad master. . . . Poverty is the want of money. If you think too much of making money, the chill of poverty will enter into the very bones" (cp. part ii. of chap. ii. of his *Pleasures of Life*).

Schiller's writing that "'Tis money, the god of the world, that holds dominion," was evidently the guiding principle of the elder Dombey; and the seductiveness of money is indeed confirmed by the ordinary experience of life: one has just to throw this off by self-discipline, and hold cheaply the prevailing estimate of a man's "success in life" by the amount of money that he has been able to accumulate, which is more dominant in America than it is to be hoped it ever will be in England, where there are at least fewer men of the Montague Tigg stamp than in the States. "Give me neither wealth nor poverty" is here no worn-out maxim. Every well-wisher of

American citizens can only rejoice that there are counteracting virtues exhibited by all the multi-millionaires amongst them which render "some munificent in charities, none men of pleasure, none purse-proud."

On the other hand, it is of serious importance that boys should very early learn the value of money. "If you would know the value of money," said Benjamin Franklin, "try to borrow some." Here comes in the question of trifling with that of others. A man in business should at regular intervals examine his books (chap. x.) to see what he has bought, and not only what he has sold—an important inquiry in its right place: he must make the necessary calculations in order to provide for payment at the proper time of what he owes. Flagrantly wanton indifference to the claims of others has been under the notice of British and German Criminal Courts during the last twelve months—the Isle of Man and Berlin bank scandals. At Berlin as at Douglas the managers made their own speculations, the mortgage banks offering their securities to the country banks at $2\frac{1}{2}$ per cent. below the daily quotations on the Bourse.

Enough has perhaps been said of the strictly moral aspects of Business. We will go on to speak of points connected with *discretion*. Here parents and teachers may combine in aiding boys to select callings for which they are severally suited. Lord Bacon's counsel in one of his Essays is worth recalling. "Let parents choose betimes the vocations and courses they mean their children should take, for then they are most flexible. And let them not too much apply themselves to the disposition of their children, as thinking they will take best to that which they have most mind to. It is true that if the affection or aptness of the children be extraordinary, then it is good not to cross it; but generally the precept is good, *Optimum elige, suave et facile illud faciet consuetudo.*" We are, however, here concerned chiefly with the part taken by teachers in leading up to a decision, whether by father or son. Let us, then, study some of the descriptions which have been given of Business qualities.

The Phœnicians, who probably emigrated to the Mediterranean seaboard from that of the Indian Ocean, and so would be akin to the old Babylonians, were the people most conspicuous of old for success in business. Rawlinson, in his *History of Phœnicia*, finds in them "industry, perseverance, shrewdness, quickness of perception, power of forecasting the future, power of organisation, boldness, promptness."

Mr. Smiles says: "Attention, application, method, punctuality, and despatch are the principal qualities required for the efficient conduct of business of any sort." He goes on to say, in development of this, that the man who "employs his powers with the greatest industry and the most carefully disciplined skill" is the one "who achieves the highest results," rather than "the man of the greatest natural vigour and capacity." Either man may be one of the "fittest," and so "survive." Happy he that has both strings to his bow.

Arrangement, or order, is the first law of Nature. Κόσμος (order) is the old Greek word for "universe." Arrangement, it has been said, will have "a post for every man, will know what every man does, will have a place for every tool, a pigeon-hole for every paper." This, too, a schoolboy should learn before he sets face in any place of business. He will want it as an employee before he becomes an employer.

The mention of "punctuality," which is an application of order, brings up the use of Time. The economy of it is one of the chief conditions of success in all work. Bacon says (Essay xxv.): "Time is the measure of business, as money is of wares." Leisure time, moreover, should be duly provided for, every pupil being encouraged to take up what the Greeks called a πάρεργον (recreative pursuit), something that one can like for its own sake, be it poetry, or natural history, etc., finding *recreation* in another form of *work*.

In business young clerks will find how important it is to be regular in replying to letters.

The clerk who contributed notes on the work of a woollen mill (chap. v.) writes that he has found by experience that

for boys "it is a good thing to be particular about little things. One gets into a habit of carefulness and exactitude in after life that is most valuable; and if a principal sees signs of slovenliness or carelessness he is bound to be prejudiced against you."

Tact is a quality with difficulty developed in boys, but something certainly can be done to convince them, from mistakes made, of the value of it. One form it takes is that of courtesy, always met with in "nature's gentlemen," but which must be instilled into all. Nothing is ever lost by it; much may be gained. Principals need to set an example of it in their relations with employees, especially if these are brought into close contact with customers.

Thayer remarks that Abraham Lincoln "was better educated than one half the graduates of Harvard and Yale." This was due, doubtless, to the mistaken notions entertained by these people whilst at school, or by their instructors there as to the function of school education. Moreover, whether one have the advantage of a university training or not, the possession of great ability is no guarantee of success, which depends more on what is called "staying power."

BUSINESS, following upon SCHOOL, will itself impart education not, perhaps, to be had out of it. Here a young clerk should early discover the advantage to himself of studying the interests of his employer, instead of doing everything in a perfunctory manner, or scamping his work. Men know well who serve them best, and as a rule are not behindhand in acknowledging it at the right time. One learns best how to act as an employer from first being an employee; just as in an army, a man is of course considered as most to be congratulated who, the "architect of his own fortune," rises from the ranks to take a chief command. Submission is one of the roots of society.

"Employees," says Mr. Platt, "often think they are discharged for a trivial matter . . . the reason is because their employers are dissatisfied with their *general conduct*."

Workmen, elementary school pupils should be told, will

increase their Wages by increasing Profits, as when they make the utmost use of the tools at their command. The policy of Trade Unions can only be changed by the infusion of ever fresh blood into the ranks of workers.

We will suppose that a man, by service with a firm of good standing, has gained ample experience and familiarity with the internal working of such a concern; and that, other things being equal, this justifies his thinking that it is time for him to join the ranks of employers. He may adopt any one of the following courses:—(1) He may decide to start a new business either by himself, as having a connection of his own, with adequate capital, or in association with another or others like-minded. (2) He may have the opportunity of buying an established business, as on the demise of his principal, by arrangement with the executors of the deceased. (3) He may have an offer made to him of a partnership in an existing business, by reason of his proved ability by which it has profited, although he may not have capital which he can bring in. There is, besides, the case of a capitalist entering into a constructive partnership under the Acts of 1867 and 1890 (cp. chap. iv.), according to which also a person may take a share of profits without liability for risks, if there is nothing in the agreement to show that he is to have control over the business, as by having access to the books. But these cases (as to which reference may be made to the pupils' Manual, § 33) may be discarded for our present purpose, as our intending "entrepreneur" is being regarded more as a fully equipped business man than as a leisurely capitalist.

Some will take special pleasure in making, working up, a business from the first; such is the energetic young man, with great aptitude for sole control, with ideas and plans which others, perhaps, do not share or even comprehend. Another may be known to be impulsive, whom his relatives will restrain from anything too venturesome; he will doubtless be advised to adopt the alternative course indicated under (1). Some businesses afford scope for display of diverse talents,

which one man will seldom combine; for these association may be preferable. Thus one intending partner might be skilled in judging of the commodity concerned, and be familiar with the conditions of the market, so as to know how to buy to special advantage, whilst his proposed colleague is an adept in the financial arrangements which will be involved—a good accountant. There are advantages and disadvantages, which must be set the one against the other, to whatever plan preference is given.

Too much reliance must not be put on the command of capital. Some firms, as Mr. Platt has remarked, have too much of it, "interest being added to working expenses on that part of capital which has been unproductive." Management with little capital goes further than large capital without it, which has been exemplified by some American Engineering Works started in Germany with profuse plant, but minus skill in control. Mechanical toil does not suffice; as a famous American already named so well said, "The eye of the master will do more work than both his hands."

One must be always on the alert, as a watchman on a tower, anticipating difficulties, and preparing for them, not being too sanguine.

Retailers often make the mistake of laying in too large a stock, which indicates loose trading. Half the failures are said to arise from over-buying. With regard to Sales, the example set by Americans seems to commend itself: to sell one article less than everybody else, and everything else as low. The Englishman's conceit, that the article which he has to offer is good enough, must be abandoned both at home and abroad. The views of your customers, which rivals studiously educate, must be consulted; their instructions implicitly, conscientiously followed.

Warning, such as British Bankruptcy Reports convey, must be taken in time. The American journal known as *Bradstreet's*, in January, 1900, gave statistical tables of the alleged causes of failures in the United States and Canada respectively.

In each region the following faults were fruitful in disaster, those italicised being especially so:—

Lack of Capital. ✓
Incompetence.
Inexperience.
Unwise Credits (in Canada more particularly).
Speculation.
Fraud.
Competition.
Failures of others.
Neglect.
Extravagance.

All of us seek to **succeed**, according to our own ideas of what is meant by success. In its more sordid form we may aim at too much, and, with the excuse made of regard for a decent living, forget what life consists in. As we have recently been reminded by Sir J. Fitch, "Man liveth not by bread alone." No writer of a book as this could wish to contribute to such a result as that of any of his readers having their capabilities for a higher life than that of money-making benumbed by a struggle to have much to retire upon, which should end in having nothing to retire to. Just as it behoves a man of learning to make right use of that, so should all who gain the laurels of commerce maintain character unimpaired to the end.

LITERATURE.

Defoe, *The Thorough Business Man.*
,, *Complete English Tradesman.*
Herbert Spencer, *The Morals of Trade.*
Smiles, *Character*
,, *Duty*
,, *Self Help*
,, *Thrift*
} In French, German, Italian, Russian, and Dutch translations.
Lalor, *Money and Morals.*
McCunn, *The Making of Character.* Chaps. v., vi.
Greg, *Life at High Pressure.*
Beddoes, *Habit and Health.*

Thayer, *The Way to Succeed.*
Barnum, *How to Make Money.*
Freedley, *Practical Treatise on Business.*
Platt, *Business.*
G. Combe, *Education, its Principles and Practice* (pp. 172 f., 184 ff.).
Ruskin, *Unto this Last* (i. §§ 19–24).
Sharp, Paper on "Bankruptcy," in *Proceedings of the Birmingham Chartered Accountant Students' Society.*
T. McKinnon Wood, Lecture (for London School Board) on "Commerce and Citizenship."

APPENDIX I

WEEKLY DISTRIBUTION OF TIME

A. For a Two Years' Course (age 15–17)

Group of Subjects.	Subject.	Number of Lessons. Hours.		Total Hours for each Year.	
		1st year.	2nd year.	1st year.	2nd year.
1. Languages (chap. ii.)	English	3	3	13	13
	German	5	5		
	French	5	5		
2. Mathematics	Mathematics	4	4	8	8
Science	Science	3	3		
Drawing (chap. iii.)	Drawing	1	1		
3. Technical (chaps. iv.–xii.)	Geography and History	3	3	8	8
	Economics	2	2		
	Commercial Science and Practice with Book-keeping	3	3		
		29	29	29	29

N.B.—Slightly one-fourth of the whole time in each year to be given to Technical subjects. Cp. note to second table.

B. Time Table for a Three Years' Course (14–17)

Group of Subjects.	Subject.	Number of Lessons. Hours.			Total Hours for each Year.		
		1st year.	2nd year.	3rd year.	1st year.	2nd year.	3rd year.
1. Languages (chap. ii.).	English	4	3	2	14	13	12
	German	5	5	5			
	French	5	5	5			
2. Mathematics	Mathematics	4	4	4	9	9	8
Science	Science	4	4	3			
Drawing (chap. iii.)	Drawing	1	1	1			
3. Technical (chaps. iv.–xii.)	Geography and History	3	3	3	6	7	9
	Economics	1	2	2			
	Commercial Science and Practice with Book-keeping	2	2	4			
		29	29	29	29	29	29

N.B.—Of the whole time one-fifth, one-fourth, and one-third respectively would thus be given to the Technical subjects. The figures in each table represent lessons each of one hour; but if the lesson be limited to three-quarters of an hour, then 3 will become 4, 6 will become 8, etc.

APPENDIX II

Sample of "series": German and French, used at the Gouin School, Liverpool. Each consists of three parts: (1) Indication of the subject-matter, which is practised systematically by each of the class in turn; (2) this put in dialogue form; (3) a letter following up the dialogue. The sample given introduces an everyday incident affecting traders at Paris and Berlin respectively, engaged in the wholesale silk business, who have to change their tactics in order to meet competition; and after conference with their employees, communicate in writing with firms at Lyons and Crefeld respectively, whose aid is sought to enable them to supply a good article at a lower than their accustomed price. Neither series is a mere translation of the other, although they serve exactly the same purpose.

A. GERMAN

AUFGABE No. 1.—*Der Grosshandel. Seidenwaaren.*

Wir befinden uns im Kontor der Firma C. A. Weber & Co. in Berlin.

Diese Herren betreiben eine Seidenwaaren-Grosshandlung (ein Seidenwaaren-Engrosgeschäft, ein Engrosgeschäft in Seidenwaaren).

Sie machen ein bedeutendes Versandgeschäft nach dem Inlande und haben ebenfalls eine grosse Platzkundschaft.

Der Leiter des Platzgeschäftes findet, dass eine bestimmte Qualität schwarzer Seide nicht mehr so gut geht, wie früher.

Er spricht mit dem Principal darüber.

Dieser hat die gleiche Klage von seinen Reisenden in der Provinz gehört.

Man beschliesst, der Sache auf den Grund zu gehen und zunächst den Stadtreisenden zu befragen.

Der Stadtreisende kommt.

Er hat ausgefunden, dass die Konkurrenz eine billigere, aber recht gute Waare auf den Markt bringt.

Es war ihm möglich, sich ein Muster der Konkurrenzwaare zu verschaffen.

Er zeigt den Herren das Muster.

Man prüft es genau

und findet es für den Preis (von M. 5.40 per Meter) sehr gut.

Die Waare wird in Zürich gemacht und viel gekauft.

Der Principal bestimmt, dass das Muster an L. M. Schmidt & Co. in Crefeld zwecks Preisaufgabe (Quotierung) zu senden sei.

AUFGABE No. 2.—*Gespräch.*

Principal: Nun, Herr Hollmann, was bringen Sie?

Hollmann: Ich finde, dass unsere Qualität schwarz (es) Moiré No. 14 nicht mehr so viel gekauft wird, wie früher und möchte mit Ihnen darüber sprechen. Störe ich?

Principal: Durchaus nicht! Ich habe die gleiche Klage von unseren Reisenden in der Provinz gehört. Was mag die Ursache sein? Ich möchte der Sache auf den Grund gehen.

Hollmann: Vielleicht kann Herr Fuchs uns Auskunft geben. Ich glaube, er ist gerade von der Kundschaft zurückgekommen. Soll ich ihn rufen?

Principal: Ja, bitte, lassen Sie ihn hereinkommen. (Herr Fuchs, der Stadtreisende, kommt).

Principal: Sagen Sie mal (einmal), Herr Fuchs, wie kommt es, dass wir jezt solch geringen Umsatz für unser Moiré No. 14 haben?

Fuchs: Ich habe schon vor einiger Zeit bemerkt, dass die Konkurrenz eine billigere Waare anbietet (auf den Markt bringt), konnte aber nicht erfahren, wo dieselbe gemacht wird. Heute Morgen habe ich ausgefunden, dass sie von Nestle & Co. in Zürich kommt. Hier ist ein kleines Muster, welches ich mir verschafft habe.

Hollmann: Wer hat es Ihnen gegeben?

Fuchs: Der alte Herr Adler von Adler, Herzog & Co. war so freundlich.

Principal: Die Waare sieht gut aus. Geben Sie mir bitte den Fadenzähler. [Erhält den Fadenzähler und prüft das Muster.] Wirklich nicht sehlecht! Wissen Sie, was die Waare kostet?

Fuchs: Ich höre, dass Nestle & Co. sie an Grossisten für M. 5.40 verkaufen. Unsere Qualität No. 14 kostet M. 6.40 und ist nicht viel besser.

Hollmann: Fünf Mark und vierzig (Pfennig) ist sehr billig. Finden Sie nicht auch, Herr Weber?

Principal: Ausserordeutlich billig! Senden Sie das Muster an Schmidt & Co. in Crefeld. Sagen Sie, dass wir billigste Preisaufgabe haben möchten und erwähnen Sie, dass wir grosse Quantitäten gebrauchen können.

AUFGABE No. 3.—*Brief.*

BERLIN, S.W., DEN 28 *Februar*, 1901.
FRIEDRICHSTRASSE No. 154.

Herren L. M. Schmidt & Co.,
Crefeld,
Bahnhofstrasse No. 14.

Wir erlauben uns, Ihnen einliegend ein kleines Muster von schwarz seidenem Moiré zu übersenden und würden Ihnen dankbar sein, wenn Sie uns umgehend Ihren billigsten Preis dafür aufgeben möchten. Die von Ihnen bisher bezogene Waare, unsere No. 14, wird durch diese Qualität gänzlich verdrängt. Nestle & Co. in Zürich sind die Fabrikanten. Sie verkaufen an Grossisten zu M. 5·40 per Meter und haben sehr bedeutenden Umsatz. Wenn Sie eine ähnliche, gute Waare zu ungefähr M. 5·= per Meter anfertigen könnten, würden wir imstande sein, grosse Quantitäten abzunehmen.

Ihren gefl. Nachrichten entgegensehend, zeichnen wir

Hochachtungsvoll,
C. A. WEBER & Co.

B. FRENCH

EXERCICE No. 1.—*Dans une maison de soieries en gros.*

Nous sommes dans les bureaux de la maison G. Perron et Cie à Paris.

Ces messieurs ont un commerce de soieries en gros.

Ils font beaucoup d'affaires avec la province et leur clientèle locale est importante.

Le directeur de la maison trouve qu'une certaine qualité de soie noire ne se vend plus si bien qu'auparavant.

Il en parle à un des principaux employés.

Ce dernier a reçu la même plainte de plusieurs voyageurs de province.

Ils décident alors à en chercher les causes, et en premièr lieu à questionner à ce sujet le voyageur qui fait la ville.

Celui ci vient et expose qu'il a trouvé que des concurrents ont mis en circulation une qualité bien meilleure marché mais cependant très bonne.

Il a pu s'en procurer un échantillon qu'il montre à ses patrons. Ceux ci l'examinent soigneusement et déclarent la qualité très bonne pour le prix qui est de francs 5·40 par métre.

La marchandise est fabriquée à Zürich et se vend beaucoup.

Le directeur décide à envoyer à Dupont et Cie à Lyon l'échantillon en question pour que ceux ci donnent leur prix.

EXERCICE No. 2.—*Dialogue.*

Le directeur: Voulez vous venir dans mon bureau, M. Durand, j'ai à vous parler.

M. Durand (un des principaux employés de la maison): Certainement, Monsieur, je suis à vous dans une minute.

Le directeur: Comment cela se fait-il, M. Durand, que notre moiré No. 14 ne se vend plus si bien qu'auparavant? Pourriez vous m'en donner la raison?

M. Durand: J'ai justement remarqué la même chose et j'ai reçu la même plainte de nos voyageurs de province. Peut-être M. Laurent pourra-t-il nous renseigner; il vient de revenir de tournée; voulez vous que je l'appelle?

Le directeur: Oui, certainement, faites le venir ici. (M. Laurent le voyageur local entre dans le bureau.) Pourriez vous nous dire, M. Laurent, pourquoi notre moiré No. 14 se vend si mal maintenant?

M. Laurent: J'avais remarqué, déjà depuis quelque temps, que nos concurrents avaient mis en vente une qualité meilleure marché que la nôtre; je n'avais pu me procurer ancien autre renseignement à ce sujet, et ne savais pas où cette marchandise était fabriquée, quand ce matin j'ai appris qu'elle provenait de Nestle et Cie à Zürich. En voila un petit échantillon que je me suis procuré.

M. Durand: Qui vous l'a donné?

M. Laurent: C'est M. Lambert de la maison Monceau et Cie qui me l'a envoyé ce matin.

Le directeur: La marchandise a l'air bonne. Voulez vous me donner une loupe que je l'examine de plus près. [Après avoir reçu la loupe, il examine attentivement l'échantillon.] Ce n'est vraiment pas mauvais. Savez vous ce que cela coute?

M. Laurent: J'ai entendu dire que Nestle et Cie vendent cette

qualité pour 5f.40 (prise en gros). Notre qualité No. 14 coute 6f.40 et n'est pas beaucoup meilleure.

M. Durand: Cinq francs 40 n'est pas cher du tout; ne trouvez-vous pas, M. le directeur?

Le directeur: C'est excessivement bon marché. Envoyez cet échantillon à Dupont et Cie à Lyon et demandez leur quel serait leur dernier prix si nous nous décidions à leur faire une commande importante.

EXERCICE No. 3.—*Lettre.*

PARIS, 28 *Fevrier*, 1901.
82, RUE DE RIVOLI.

Messieurs Dupont et Cie,
fabricants de soieries,
Lyon-Perrache.

Nous vous envoyons ci-inclus un échantillon de moiré de soie noire et nous vous serions reconnaissants de vouloir bien nous faire savoir par retour du courrier le plus bas prix auquel vous pourriez nous livrer cette étoffe. Notre moiré No. 14 que vous nous avez fournie jusqu'ici ne se vend plus du tout et est remplacée par cette qualité inférieure. Nestle et Cie à Zürich que fabriquent cette marchandise la vendent aux maisons de gros pour 5f.40 par mètre et en ont un grand débit. Si vous pouviez nous fournir une bonne qualité à peu près semblable nous pourrions peut-être vous faire une commande importante.

Dans l'attente de votre réponse, nous vous prions de recevoir, Messieurs, nos salutations empressées.

MERLIN ET CIE.

APPENDIX III A

SOME EDUCATIONAL AND EXAMINING BODIES, WITH NAMES AND ADDRESSES OF SECRETARIES.

1. *London Chamber of Commerce:*
   K. B. Murray, Botolph House, 10, Eastcheap, E.C.
2. *Society of Arts:*
   Sir H. Trueman Wood, John Street, Adelphi, W.C.
3. *Union of Lancashire and Cheshire Institutes:*
   J. T. Coles, 1, Princess Street, Albert Square, Manchester.
4. *City of Liverpool School of Commerce:*
   W. Hewitt, Corporation Buildings, St. Thomas Street, Liverpool.
5. *West Riding of Yorkshire Technical Instruction Committee:*
   W. Vibart Dixon, West Riding Offices, Wakefield.
6. *Institute of Bankers:*
   Secretary, 34, Clement's Lane, E.C.
7. *Institute of Chartered Accountants:*
   Hon. George Colville, Moorgate Place, E.C.
8. *Institute of Actuaries:*
   A. G. Wiggins, Staple Inn Hall, Holborn, W.C.
9. *Oxford Local Examinations:*
   Secretary, Local Examinations Office, Merton Street, Oxford.
10. *Cambridge Local Examinations:*
    The General Secretary, Syndicate Buildings, Cambridge.
11. *National Union of Teachers:*
    A. A. Thomas, 71, Russell Square, W.C.
12. *Welsh Intermediate Board:*
    P. Watkins, Cardiff.
13. *Scotch Education Department:*
    Sir H. Craik, K.C.B., Dover House, Whitehall, S.W.
14. *Irish Intermediate Board:*
    The Assistant Commissioners, 1, Union Street, Dublin.

APPENDIX III B

THE Lancashire County Council offers for competition annually Commercial *Scholarships* of the value of £60 for three years; and Commercial *Exhibitions*, tenable for one year at either evening classes (value £5) or day classes (value not exceeding £15).

SUBJECTS OF EXAMINATION

For the Commercial Scholarships, Papers of three hours each will be set in the following subjects:—

1. Mathematics (Arithmetic and Algebra).
2. Commercial Geography.
3. Political Economy.
4. English (including Grammar and Composition).
5. French.
6. German.

Candidates will be required to take at least four of the above subjects, of which Mathematics must be one, and French or German another.

Teachers or Candidates who are preparing to engage in teaching are not eligible to compete for Commercial Scholarships.

Commercial Scholars will be required to take a course fitting them for a Commercial career, and will be required to attend a three years' course of instruction in such Technical or Commercial Subjects as the Technical Instruction Committee may prescribe, at such Institution providing higher Technical or Commercial Instruction as may be approved by the Technical Instruction Committee.

APPENDIX III c

THE COUNTY COUNCIL FOR THE COUNTY PALATINE OF LANCASTER

EXAMINATION FOR COMMERCIAL SCHOLARSHIPS, APRIL, 1899

MATHEMATICS (ARITHMETIC AND ALGEBRA)

Three hours are allowed for this paper. Not more than TWELVE *questions may be attempted, and not more than six may be taken from Nos. 1 to* 8.

ARITHMETIC

1. Simplify— $\dfrac{11\cdot\dot{3}\times 5\cdot 175}{1\cdot\dot{3}5\dot{1}\times 10\cdot\dot{2}\times 10\cdot 2}$,

and reduce $\cdot 2\dot{3}$ of $\cdot\dot{3}\dot{6}$ of 5*s.* 4*d.* to the decimal of a pound.

2. The English and French units of length and mass are connected by the relations—

1 metre = 3·28 ft.,
1 kilogramme = 2·205 lbs.,

and a litre or cubic decimetre contains one kilogramme of water. Find from these data how many ounces of water are in one cubic foot.

3. Brittany butter, which can be produced and brought to the English market at a cost of 3·1 francs per kilogramme, is sold at 16*d.* the pound. Assuming 1 lb. = 25 grams, 1 kilo = 205 lbs., find how many kilogrammes must be sold to give a profit of 100 francs.

4. A person invests a sum in Swedish $3\frac{1}{2}$ per cent. bonds at 103 with a brokerage of $\frac{1}{8}$ per cent. After six years the bonds are drawn for payment and paid off at par. What rate of interest has been obtained on the capital, reckoning simple interest only?

5. What is meant by the "true present worth," "true discount," "bankers' discount"?

Find to the nearest penny the "true discount" on a sum of £4,120 8*s.*, payable seventy-eight days hence, interest at $4\frac{1}{2}$ per cent.

6. The capital of a company consists of £1,000,000 five per cent. preference stock and £1,000,000 ordinary stock. After the

deduction of the working expenses from the gross receipts, the remainder is first subject to an income tax of 8*d.* in the £, and is then sufficient to pay the preference dividends, 3½ per cent., on the ordinary stock, and leaves a balance of £1,453 13*s.* 4*d.* The gross receipts amounted to £184,233. Find correct to two decimal places what percentage of gross receipts was absorbed by the working expenses.

7. A bill for 4,120·2 francs on Paris, payable at sight, costs £163 10*s.* in London. What is the rate of exchange in London on Paris?

8. What sum will amount to £1,000 in ten years at 3½ per cent. compound interest? Given—

$$\log. 1{\cdot}035 = 0149403$$
$$\log. 7{\cdot}0892 = {\cdot}8505972$$

ALGEBRA

9. Prove that the remainder, when a number is divided by 9, is equal to the remainder when the sum of the digits is divided by 9, and explain how to test the result of a multiplication by "casting out the nines."

10. Simplify—

(1) $(a-c)(a-d)(x-b)^2+(b-c)(b-d)(x-a)^2 + \{(a+b)(c+d)-2(ab+cd)\}(x-a)(x-b)$

(2) $\dfrac{x^2+x+1}{x^2-x+1} - \dfrac{2x(x+1)^2}{x^4+x^2+1} + \dfrac{2x^2(x^2-1)^2}{x^8+x^4+1}$

11. Find the product of—

$$\{(ac+b^2)+\sqrt{(a^2-b^2)(c^2-b^2)}\}^{\frac{1}{2}} \text{ and}$$
$$\{(ac+b^2)-\sqrt{(a^2-b^2)(c^2-b^2)}\}^{\frac{1}{2}}$$

Show that, when $x=\sqrt{3}+\sqrt{5}$, the value of

$$\frac{2x^2+3x+4}{x^2-3x+2} \text{ is } \frac{49+18\sqrt{5}}{11}$$

12. Solve the equations—

(1) $acx^2-(bc-ad)x-bd=0$

(2) $\left(x^2+\dfrac{1}{x^2}\right)=9\left(x+\dfrac{1}{x}\right)-14$

(3) $\dfrac{x(y+z-x)}{a}=\dfrac{y(z+x-y)}{b}=\dfrac{z(x+y-z)}{c}$

$$x^2+y^2+z^2=1$$

13. Sum to n terms the series—

$$a+(a+b)r+(a+2b)r^2+(a+3b)r^3+ \ldots$$

Find how many terms of the series—

$$1+\cdot09+(\cdot09)^2+(\cdot09)^3+ \ldots$$

must be taken, in order that the sum may fall short of the sum to infinity by less than $\frac{1}{10^{12}}$, given $\log.3=\cdot4771213$, $\log.91=1\cdot9590414$.

14. The income of an association is derived from dividends on consols and from the annual subscription of its members. In a year when consols produced 3 per cent. and the number of members was 3,521, the income was £1,006 5*s*. When consols were reduced to $2\frac{3}{4}$, the association had a membership of 4,020 and an income of £1,120 10*s*. Find the amount of the annual subscription.

15. Show that, when compound interest is reckoned at 3 per cent., the present value of a perpetual annuity is $33\frac{1}{3}$ years' purchase.

Find also an expression for the present value of an annuity for n years, and show that, reckoning compound interest at 3 per cent., the present value does not differ from that of a perpetual annuity of the same amount by more than 1 per cent. unless the period be less than 157 years. Given—

$$\log.\ 1\cdot03=\cdot0128372$$

16. A company sets aside £3,000 at the beginning of each year for a period of ten years in order to create a reserve fund. The money is invested so as to accumulate at 3 per cent. Find the total reserve fund at the end of the ten years. Given—

$$\log.\ 1\cdot03=\cdot0128372$$
$$\log.\ 1\cdot3439=\cdot1283670$$
$$\log.\ 1\cdot3440=\cdot1283993$$

POLITICAL ECONOMY

Three hours are allowed for this paper. Not more than TEN *questions may be attempted. The number of marks assigned to each question is the same.*

1. "Political Economy may be described as the 'theory of business.'" "The theory of business leads a life of obstruction because the theorists do not see the business, and the men of business will not reason out the theories."

Discuss these statements, and explain how you would propose to meet or remove the difficulties thus suggested.

2. Explain the following terms: productive labour, circulating capital, diminishing returns, peasant proprietors, wages of superintendence, foreign exchanges, convertible paper, indirect taxation, socialism, economic history.

3. Define "capital," and estimate the importance of the part played by it in the production and in the distribution of wealth.

4. Distinguish carefully between the different varieties of money employed in England to-day. Point out the particular functions discharged by each variety, and note the extent to which these functions are, or are not, satisfactorily fulfilled.

5. What do you know of the following important economic events: The Peasant Revolt, the Dissolution of the Monasteries, the Discovery of America, the Bank Charter Act of 1844, the Repeal of the Corn Laws, the Poor Law Amendment Act of 1834? Point out in each case their chief causes and consequences.

6. State and explain the Wages-fund Theory. How far may it be regarded as (*a*) appropriate to the time when it was first propounded, (*b*) inapplicable to the circumstances of the present day?

7. What are the chief motives which have led to colonisation in ancient and modern times? By what economic principles at different times has it been proposed or attempted to regulate the commercial policy of the colonies and their trade relations with the mother country?

8. Give a brief sketch of the opinions and writings of any two of the following economists: Adam Smith, Malthus, Ricardo, John Stuart Mill.

9. What is meant in economics by the "value" of a commodity? By what circumstances is this value mainly determined in the case of different classes of commodities?

10. To what causes may the commercial and industrial supremacy of England be attributed? To what dangers is it specially exposed? How would you propose to meet those dangers?

11. Discuss the arguments which may be advanced for and against the following proposals:—

(*a*) Compulsory arbitration in industrial disputes.

(*b*) The commercial policy of the "open door."

(*c*) The claim to a living wage.

12. Competition has been regarded by some writers as a good, and by others, as an evil influence. What judgment would you express on this point, in the light of (*a*) theory, (*b*) history?

COMMERCIAL GEOGRAPHY

Three hours are allowed for this paper. Not more than EIGHT *questions may be attempted. The number of marks assigned to each question is the same.*

You are advised to illustrate your answers as far as possible by sketch maps.

1. Draw a map of the basin of the river Trent, showing the counties, principal towns, and main railway lines.

2. You are directed to travel from Liverpool to Exeter, Oxford and Coventry, in the order named. Describe the routes you would follow, naming the chief stopping-places and junctions.

3. Name the Continental ports to which lines of steamers run from the following English towns: (*a*) Harwich, (*b*) Newhaven, (*c*) Sheerness, (*d*) Southampton, (*e*) Folkestone.

4. Give accounts of the trade in (*a*) coffee, (*b*) indiarubber.

5. Give some account of the Egyptian Soudan as an outlet for British commerce. Show how the Fashoda incident affected the question.

6. Give a description of the industries of *either* (*a*) British South Africa, or (*b*) Australia, saying where you think manufacturing centres are likely to arise, and giving reasons for your answer.

7. Name some industries other than agriculture or mining which seem to you adapted to districts at a distance from a coalfield. Quote some examples to illustrate your answer.

8. During the last year the newspapers have frequently referred to:—

(*a*) The French Shore Question in Newfoundland.

(*b*) The British Concession at Shanghai.

(*c*) The Nicaragua Canal Question.

What are these, and where are the places?

9. What are the following articles of commerce, and where are they produced: (*a*) arrowroot, (*b*) sago, (*c*) tapioca, (*d*) maccaroni, (*e*) ginger, (*f*) opium?

10. Write an account of our trade in silk, saying where the raw material is produced, through what ports it is introduced, and where it is manufactured. Name some foreign towns whose silk goods compete with our own.

11. Describe, with a sketch map, the physical features and industries of Argentina.

12. Give a short account of the states and productions of Central America.

ENGLISH (INCLUDING GRAMMAR AND COMPOSITION)

Three hours are allowed for this paper. Every Candidate is expected to write the essay, to which not more than 30 *to* 45 *minutes should be given.*

A. ESSAY

Write an essay on *one* of the following subjects:—

(*a*) Patriotism.
(*b*) The Spanish-American War.
(*c*) The Use of Athletics.

B. QUESTIONS

All Candidates are requested to attempt Question 1. *Of the remaining questions not more than* EIGHT *are to be answered. Examples should be given wherever necessary.*

1. Analyse:—

> We ranging down this lower track,
> The path we came by, thorn and flower,
> Is shadowed by the growing hour,
> Lest life should fail in looking back.

2. Illustrate by examples the classification of *nouns*. Mention any nouns which have two plural forms differing in meaning, and state what the difference is.

3. What is an *adjective?* How many adjectives are classified? When can they be used as *nouns?* Do they ever take the plural *s?*

4. What part of speech is the *infinitive?* Illustrate the different parts which the *infinitive* may play in the sentence.

5. What are the rules for the use (*a*) of the *subjunctive mood* in Modern English, and (*b*) of *shall* and *will* in the formation of the *future tense?* Comment on the use of *will* in the following: "*Who's that knocking?*" "*I think it will be my brother.*"

6. Define and, where possible, illustrate by examples the following terms: *concord, etymology, attraction, anacoluthon, metathesis, synthesis, apocope.* Are any of these illustrated by any of the sentences in Question 11? What is the difference between *logical predicate* and *grammatical predicate?*

7. Classify the *consonant sounds* used in Modern English, and give instances of (*a*) sounds expressed by various spellings, and

(*b*) letters used to express more than one sound. What is a diphthong?

8. Explain fully what is meant by the statement that the *inflected genitive* is used in Modern English to express a *subjective*, but not an *objective genitive.*

9. Distinguish between *composition* and *derivation.* What are the chief ways of forming *compound nouns* and *adjectives* in English? Comment on *scarecrow, barefoot.*

10. In what case is the *verb* (or *auxiliary*) placed before the subject in Modern English?

11. Comment upon the following, correcting where necessary, and explaining how the errors have arisen:—

(*a*) Whom say the people that I am?

(*b*) Nothing but dreary dykes, muddy and straight, break the monotony of the landscape.

(*c*) The nations not so blest as thee must in their turn to tyrants fall.

(*d*) Being both tired and hungry, the clean little inn close at hand, at once raised our spirits.

(*e*) Our noble Arthur, him ye scarce can overpraise, will hear and know.

(*f*) Come on, my friends! He that retires, I'll take him for an enemy.

FRENCH

Three hours are allowed for this paper.

1. Translation into English.

2. Write down the third person singular of the present, imperfect, and future indicative; the third person singular of the imperfect subjunctive; and the past participle of—*s'en aller, valoir, coudre, mettre, suivre, boire, vivre, croire.*

3. How is the gender of compound nouns determined in French?

4. Distinguish between—*du* and *dû, mil* and *mille, penser à* and *penser de, des* and *dés, le couple* and *la couple, lunette* and *lunettes, travails* and *travaux.*

5. Why are adverbs of quality generally formed from the feminine of adjectives?

6. Give examples of the use of the subjunctive mood in (*a*) conditional, (*b*) final, (*c*) concessive clauses.

7. Name the general rules for the use of the acute, grave, and circumflex accents in French.

8. Give an account of the use of the partitive article in French, with examples. Name three cases in which French requires the definite article where English omits it.

9. When are cardinal numerals used in French instead of ordinals? Give examples.

10. Give the French for :—

We cannot make anything of it. He is well read in history. It is all the same to me. He went out of his mind. Let us share the profits. Illgotten goods never prosper. There is no accounting for taste. A bird in the hand is worth two in the bush. Do not take amiss what I am going to tell you. Your boots do not fit you.

11. Translate into idiomatical English :—

Ce pauvre homme vit au jour le jour. Mon ami se retire des affaires, il a de quoi vivre. Il nous parla d'une voix altérée. Vous faites la sourde oreille. Vous m'avez fait tort. Vous avez l'air de votre père. Il est tombé sur lui à bras raccourci. On n'a rien sans peine. Mieux vant tard que jamais. Le mieux est l'ennemi du bien.

12. Translate into French :—

The greatest defect in our programme of education is entirely overlooked. While much is being done in the detailed improvement of our systems in respect both of matter and manner, the most pressing desideratum has not yet been even recognised as a desideratum. To prepare the young for the duties of life is tacitly admitted to be the end which parents and schoolmasters should have in view; and, happily, the value of the things taught, and the goodness of the methods followed in teaching them, are now ostensibly judged by their fitness to this end. The propriety of substituting for an exclusively classical training a training in which the modern languages shall have a share is argued on this ground. The necessity of increasing the amount of science is urged for like reasons. But, though some care is taken to fit youth of both sexes for society and citizenship, no care whatever is taken to fit them for the position of parents. While it is seen that for the purpose of gaining a livelihood an elaborate preparation is needed, it appears to be thought that for the bringing up of children no preparation whatever is needed.

GERMAN

Three hours are allowed for this paper.

1. Translation into English.

2. State the rules for ascertaining the gender of German substantives. Give examples in each case.

3. What is the meaning of the following suffixes: *-sam, -icht, -ung, -er, -bar?*

4. Point out the differences between *der, welcher,* and *wer* when used as relative pronouns.

5. Give the meanings of the following verbs according as the prefix is separable or inseparable: *durchfahren, durchgehen, überziehen, überfahren, umgehen, umschreiben.*

6. How are English participial clauses expressed in German?

7. Construct short sentences showing the case or cases governed by *gegen, nebst, binnen, unter, ohne, hinter.*

8. Give examples showing the use of the subjunctive mood in German (*a*) in indirect questions, (*b*) in indirect command, (*c*) in final clauses.

9. Classify German conjunctions.

10. Give the German for:—

I saw him do it. I took it for granted. He thought better of it. I see him now and again. The wind has gone down. Let us draw it up in writing. He has made a rough copy of it. I will stand the risk. This man knows his business up to the mark. He disposed of the goodwill of his business.

11. Render into idiomatical English:—

Er mahnte zum Aufbruch. Es geht uns an Leib und Leben. Wie geht das zu? Er war über alle Massen aufgebracht. Man lauert uns auf. Halten Sie reinen Mund. Das ist völlig aus der Luft gerissen. Ich brauche mir das nicht gefallen zu lassen. Ich will die Folgen auf mich nehmen. Es kommt ganz auf Sie an.

12. Translate into German:—

But now mark that while, for the training of mere memory, science is as good as, if not better than, language, it has an immense superiority in the kind of memory it trains. In the acquirement of a language, the connexions of ideas to be established in the mind correspond to facts that are in great measure accidental, whereas in the acquirement of science, the connexions of ideas to be established in the mind correspond to facts that are

mostly necessary. It is true that the relations of words to their meanings are in one sense natural; that the genesis of these relations may be traced back a certain distance, though rarely to the beginning; and that the laws of this genesis form a branch of mental science—the science of philology. But since it will not be contended that in the acquisition of languages, as ordinarily carried on, these natural relations between words and their meanings are habitually traced, and their laws explained, it must be admitted that they are commonly learned as fortuitous relations. On the other hand, the relations which science presents are causal relations, and, when properly taught, are understood as such.

APPENDIX III D

THE LONDON CHAMBER OF COMMERCE

(INCORPORATED)

EXAMINATION FOR JUNIOR COMMERCIAL CERTIFICATES, 1900

TOTS

1. Add the following numbers horizontally arranged :—

(i.) 3296, 18543, 156, 29, 1429, 32, 2543, 196 = ...

(ii.) 2876, 3421, 296, 3856, 32, 2987, 126, 39, 72 = ...

(iii.) 39, 17654, 3271, 2, 9, 327, 7896, 1543, 56 = ...

(iv.) 1987, 7690, 1286, 42, 10543, 560, 8342, 53, 7 = ...

2. Add the following decimals :—

(i.) 1·365, ·00543, 721, 32·65, 321·563 = ...

(ii.) 327, 1·065, ·564, 327·08, 236·3, 546 = ...

(iii.) 325·08, ·0065, 3·856, 56·831, 327, 5·436 = ...

3. Add—

£	s.	d.
1567	5	6½
54	8	9
3	7	6¾
156	0	5
7754	3	9
156	10	3
20	9	9
5	19	10½
176	3	4½
18	6	9
9	7	8
213	0	0
59	6	2

£	s.	d.
340	9	9
2567	8	6
19	3	4½
276	2	9
18	3	4¾
1	5	6
5678	9	9
72	9	0
3	8	10
6789	10	11
354	18	0¼
43	19	8
1870	4	6

£	s.	d.
13	7	6
113	19	8
52	3	10
4321	9	11
276	3	6½
19	5	7
113	2	11¾
4444	19	4
376	18	9
25	12	6
156	10	0
39	11	6¾
3	8	10

MENTAL ARITHMETIC

	Minutes
1. Add together 518, 764, 121	½
2. Multiply 144 by 126	½
3. Divide 31·7 by 25	½
4. Find the cost of 7½ yards of cloth at 1*s.* 11½*d.* per yard	1
5. Reduce 17*s.* 3½*d.* to the decimal of £1	1
6. At what rate per cent. simple interest will the interest on £240 amount to £21 in 2½ years?	1
7. Find the value, true to the nearest sovereign, of 141 articles at £2 4*s.* 11*d.* each	1
8. Find the true discount on a bill of £364 due 16 months hence, at 3 per cent. per annum	1
9. Find approximately the hypothenuse of a right-angled triangle, base 50 feet and perpendicular 8 feet	1½
10. Find the value of 4·432 tons of ore at £2 10*s.* per ton	1
11. How many articles at 1*s.* 2*d.* each can be sold for £3 11*s.* 2*d.*?	1

COMMERCIAL ARITHMETIC

1. Explain the following Terms:—

Mortgage, Debentures, Consols, Preference Shares, Limited Liability.

Find the change in a man's income, occasioned by selling £10,000 2¾ per cent. Consols at 101⅛, and investing the proceeds in Corporation of London 3½ per cent. Debentures at 100 Brokerage ⅛ per cent. on Consols, 1 per cent. on the Debentures.

2. Find by duodecimals, the cubical content of a squared log of timber 13 ft. 7 in. long, 2 ft. 2 in. broad, and 1 ft. 9 in. thick.

Find also its value at 4*s.* per cubic foot.

3. What is the difference between True and Mercantile Discount? What are Days of Grace?

A 4 months Bill for £875 dated June 16 is cashed on July 10, the rate being 4 per cent. What is the mercantile

4. Clearly explain the following quotation :—

Latest continental and other exchange rates on London are as under :—

	Previous quotation.	Latest quotation.
Paris, cheques . .	25·21⅛ ...	25·21
Germany, 8 days . .	20·47 ...	20·46½
Bombay, T. T. . .	1/3 31·32 ...	1/4

Give a short account of the currencies in use at *two* of the above places.

5. Coal is sold in England "free on board" a vessel for 17*s.* a ton, and in France the price realised is 30 francs per tonneau (1,000 kilog.). What is total amount in francs per tonneau of freight and profit. (£1 = 25·23 francs).

6. An estate consists of house property of gross rental of £150, but on which the following payments are made :—

	£	*s.*	*d.*
Insurance	3	15	0
Land Tax	3	10	0
Sewers Tax . . .	1	15	0

The loss on account of bad tenants, etc., amounts to 12½ per cent. of the rental, ordinary repairs and expenses to 17½ per cent., and collection of rent 2½ per cent. Find the value of the freehold, calculated at 4 per cent. simple interest.

7. Which is the more advantageous of the following methods, which a London merchant might employ to settle a debt in Paris?

(i.) Buying French 4 months Bills at 25·76.

(ii.) Buying Vienna Bills at 24·30, and selling these in Paris at 1·05.

Brokerage 1 per mille.

Describe any other method of settling the debt.

LONDON CHAMBER OF COMMERCE
(INCORPORATED)

EXAMINATION FOR SENIOR COMMERCIAL CERTIFICATES, 1900

ENGLISH

1. State as exactly as you can the relation of the English Language to German, to Welsh, to Spanish, to Latin. Mention some words we have taken from languages that are not cognate with ours.

2. Give the rules for the formation of the plural of English nouns. Of what different method are there instances?

3. Describe the conjugations of the English verb. Is it right to say "He had rose," "We have writ to him," "He sat him down," "He was understood to say so," "You didn't ought to do it," "What went ye out for to see"? Describe clearly each of these ways of speaking.

4. Summarise the passage now read to you.

5. Write a short account of any important event in English History, or of any important English city or town with which you are familiar.

6. State clearly Burke's views on the subject of the revolting Colonies. Quote any noticeable phrases he uses in discussing it.

7. Briefly outline Burke's *Reflections on the French Revolution.* Point out their onesidedness. Do you consider them consistent with his previous writings?

8. What characteristics of *Romeo and Juliet* connect it with Shakespeare's earlier dramatic work? In what respects is it one of his most perfect productions?

9. Describe distinctively the characters of Brutus, Cassius, Antony as present in *Julius Cæsar.* How do you account for the so unworthy presentment of Cæsar himself?

10. Assign to their context and explain these extracts:—

(*a*) What dares the slave
Come hither, covered with on outer face,
To fleer and scorn at our solemnity?

(*b*) Now is he for the numbers Petrarch flowed in.

(*c*) Some say the lark makes sweet division;
This doth not so, for she divideth us.

(*d*) Indeed it is a strange disposed time;
But men may construe things after their fashion
Clean from the purpose of the thing themselves.

(*e*) The genius and the mortal instruments
Are then in council.

(*f*) A barren-spirited fellow; one that feeds
On abjects, orts and imitations,
Which out of use and staled by other men
Begin his fashion.

TO BE SUMMARISED

(*See Question 4*)

First and foremost of the necessary means towards man's civilisation we must name expansion. The need of expansion is as genuine an instinct in man as the need in plants for the light, or the need in man himself for going upright. All the conveniences of life by which man has enlarged and secured his existence—railroads and the penny post among the number—are due to the working in man of this force or instinct of expansion. But the manifestation of it which we English know best and prize most is the love of liberty.

The love of liberty is simply the instinct in man for expansion. Not only to find oneself tyrannised over and outraged is a defeat to this instinct; but, in general, to feel oneself over-tutored, over-governed, *sat upon* (as the popular phrase is) by authority is a defeat to it. Prince Bismarck says: "After all, a benevolent rational absolutism is the best form of government." Plenty of arguments may be adduced in support of such a thesis. The one fatal objection to it is that it is against nature, that it contradicts a vital instinct in man—the instinct of expansion. And man is not to be civilised or humanised, call it which you will, by thwarting his vital instincts. In fact, the benevolent rational absolutism always breaks down. It is found that the ruler cannot in the long run be trusted; it is found that the ruled deteriorate. Why? Because the proceeding is against nature.

MATTHEW ARNOLD.

SHORTHAND

A.—550 words to be read in 5 minutes.

119, QUEEN STREET, CHEAPSIDE,
LONDON, E.C.,
April 19th, 1900.

Minutes.

¼ DEAR SIR,—We are in receipt of your letter of the 16th / instant, asking us to let you know as soon as possible what information we have been able to ascertain with reference to
½ the transactions connected with the / formation and promotion of the Saddlers' Union, Limited. We have found it necessary to make very extensive inquiries, and we regret to say that
¾ the facts that we / have discovered reveal a very serious condition of affairs.

Towards the end of 1898, Mr. James Wilson, one of the
1 directors of the present / company, called, it appears, on a number of saddlers carrying on business in various parts of the
1¼ Metropolis, and stated that he was acting for a client who / was anxious to purchase saddlery businesses, adding that the client was willing to pay a good price for them. On the
1½ strength of these representations he succeeded / in getting twenty tradesmen to sell. In all the contracts entered into subsequently the purchaser was described as a Mr. John
1¾ Jones. But Jones, it appears, was not / the real buyer. He was a man of no means, and was, in fact, Wilson's clerk. We have had interviews with four of the original vendors,
2 and / they tell us that Wilson made it a condition with each of them that they should pay him a commission of ten per
2¼ cent. on the amount of / the selling price. They all state that they acceded to these terms, and that the commission was deducted on completion of the purchase. We are
2½ instituting further / inquiries, and have no doubt that it will turn out that the same arrangement was come to in every case.
2¾ The effect of this would, of course, be / to make the apparent purchase money ten per cent. higher than the actual price paid by Wilson, who was the real buyer. The twenty
3 businesses were ostensibly / sold to Jones for ten thousand pounds, but were, in fact, bought by Wilson for nine thousand pounds.

3¼ Wilson's next step was to form a Syndicate to take / over the businesses, with a view to selling them later on to a Company. This Syndicate consisted of Wilson and six other

persons, who between them subscribed / a total sum of seven hundred pounds, that sum constituting the entire cash capital of the syndicate. The twenty businesses were transferred by Jones to the syndicate, the / purchase price being stated as thirty thousand pounds. No money passed, all that happened being the allotment to Jones of thirty thousand £1 shares in the / syndicate. The whole of these shares were shortly afterwards transferred into the names of the various members of the syndicate, Wilson taking twenty-four thousand of them, and / the others sharing the remaining six thousand equally between them.

The present Company gave sixty thousand pounds for the businesses, and the bulk of that sum found / its way into Wilson's pocket. We need only add that Wilson is a Director, and was one of the promoters of the Company.

We hope to be in / a position to write to you further on subject within the next few days.

We are, Dear Sir,
Yours faithfully,
BROWN & THOMPSON.

W. HUGHES, Esq.

B.—*1,200 words to be read in 10 minutes.*

LADIES AND GENTLEMEN,—Your Chairman in his announcement omitted one important adjective. You will see on the programme that my address is to be a "short" address. When you kindly / asked me to come here I stipulated that that should be put in the programme, because if it is not put in the programme people settle down with a sort / of comfortable feeling—half comfortable and half something else—with which they begin listening to a sermon which they know will be long; and therefore, such an address, such an / expectation, is a weariness of the flesh both to the speaker and to the audience. Well, I won't detain you a minute. I would gladly have given my time to / your Chairman, who seemed to me to set forth the merits of the buildings as concisely and as admirably as it is possible to do. But, in any case, I / am glad to come here. I thank you, in the first place, for a long drive through all the varied wonders of that world we call London. In the second / place, I thank you for bringing back to my mind some of the duties which I

frequently performed when I was Chairman of the London
1¾ County Council. Nobody who has / held that high and daily
more important office can fail to have an interest in every
part of this Metropolis; and it is with a lively satisfaction
2 that I see / beside me on the platform four or five of my old
colleagues in the assembly. In the next place, I do not
2¼ think it a very bad thing that one / who lives in the West
End should come and show by what sympathy he can that
London is a unit. Since the establishment of the London
2½ County Council we have / all worked—or many of us have
worked—to try and make London feel that she is one, and I
2¾ think that nothing is so calculated to do so as / the visit of
inhabitants from one part of the town to the other; and I
am sure that if you will come and visit us at the West End,
3 and / open a new building for us, we will give you as hearty
a welcome as you have given to me. I have another reason
3¼ for thanking you, because I understand / that Shoreditch is
one of the model Vestries of London. I have seen Shore-
ditch described as a "Municipal Mecca," but there are so
3½ many "Municipal Meccas," beginning with Birmingham,
and / going on indefinitely, and if I wanted to find the real
shrine of the prophet I should have to take a good many days
3¾ about it. But, in any case, / Shoreditch is one of our model
vestries, and after this meeting separates I am to see more of
its work, under the auspices of my old friend, Mr. Moss.
4 I / think one of the most important works that you or any
other vestry can have undertaken is the business of the
4¼ housing of the working classes. When you read the facts,
as they are presented to you, and as they are daily coming
home to the minds of our people, and I hope ultimately even
4½ of our statesmen, they are / alarming enough. Even here,
when you have done so much, there is, and will always be,
one great flaw. It is this. You have to turn out the in-
4¾ habitants of / these wretched tenements that your chairman
has described, and build instead the admirable dwellings that
I have been privileged to inspect. But the inhabitants of
5 these new dwellings are not / the people that you dispossess.
They cannot be the people that you dispossess, and while
you are dealing with this problem, in a manner large, liberal,
5¼ and comprehensive, as the Shoreditch / Vestry is doing, you
have always at the back, looming over you, an obstacle almost,

if not quite, insuperable. What is to be done with that
5½ residuum which you displace / by your new buildings? Now
I am not here to give an answer to that question to-day.
5¾ It is a question that will have to be faced, for as / vestries
emulous of Shoreditch, or vestries that are compelled to
emulate Shoreditch, begin their operations of this kind to
this extent, you will have, indeed, an improved working
6 men's city / growing up in the heart of London. But you
will have equally pushed backwards, backwards, backwards, a
residuum of misery and crime, which, in the long run, you
6¼ will be / obliged to deal with. There are other obstacles
presented by the problem of building decent workmen's houses,
and getting into them the tenants you want. In some cases,
6½ I believe, / these dwellings are so superior that they are
occupied by a class for which they were not intended. I am
6¾ quite certain, if the vestry here had not exercised a / wise
discretion in refusing tenants who offered much more than
the rent you are prepared to accept, that that would have
7 been the result in the present case. But look / how a vestry
that wishes and tries to do its duty is fettered in the effort. I
take this little programme—I know nothing more than this
7¼ little programme tells / me, but it tells me a great deal. One
of the various obstacles was that no less than eight years
intervened between the first inspiration of your project and
7½ the / signing of your contract with your builder. And how
were those eight years spent? Partly in applications to the
Local Government Board, partly in applications to the
7¾ London County Council, / partly in difficulties with those
gentlemen who are picturesquely called the "Slum Lords,"
who own the property you wish to acquire. But what is
8 eight years? Think what a space / eight years is in the
life of a man or of a generation. Those eight years have
been almost entirely sacrificed. There must have been some
8¼ necessary delay, but those / eight years have been almost
entirely sacrificed, owing to the difficulties that are placed in
your path by a too careful legislation. I will give an instance
8½ of what I / mean, not taken from the borough of Shoreditch.
You are aware that one of the great difficulties of dealing
with these insanitary properties is the nature of their owner-
8¾ ship. One / of the great difficulties is even to discover who
are the owners. They are very often an obscure class who

draw very considerable rents without appearing, and without
9 appearing for / obvious reasons—on the surface. But the
other day the borough of West Ham was very anxious, in a
transaction of this kind, to ascertain who the owners were.
9¼ It / had the greatest difficulty in doing so, and in some cases
it was impossible, I believe, to do so. There are so many
9½ agents and clerks in front of the / real and genuine owner.
Well, the borough of West Ham applied to the Local Govern-
ment Board for powers to compel registration of all owner-
9¾ ship of house property within the borough/. But the Local
Government Board, for reasons which I do not doubt were
good and sufficient in view of the general aspects of the case,
10 had to refuse their permission. /

TYPEWRITING

1. Copy the letter in proper form.
2. Copy the table, and rule the columns.
3. Copy the article, and take two carbon copies.
4. Copy the report, and set it out correctly.
5. Copy the quotation.

NOTE.—Accuracy and neatness are essential. Mistakes in spelling may be corrected, and the papers must be properly punctuated. No abbreviations are allowed.

GERMAN

I. Überſetzung aus dem Deutſchen in's Engliſche:—

1. Dieſes Schiff iſt von uns allein befrachtet worden.

2. Ihre Buchung ſcheint nicht übereinſtimmend mit der meinigen zu ſein.

3. Mit den jetzigen hohen Preiſen hat es ſicher keinen Beſtand.

4. Ich erſuche Sie hiermit, meine Beſtellung vom 30. v. Mts. zu annullieren.

5. Mein jährlicher Bedarf in dieſem Artikel iſt nicht unbedeutend.

6. Unſer Briefwechſel iſt ſeit langer Zeit ins Stocken geraten.

7. In Ihrem Nächſten wollen Sie mir gefl. aufgeben, was ich Ihnen noch zu zahlen habe.

8. Meine Schuldner haben ſich, ſowohl der Zahl als dem Geſamtbetrage nach, in dieſem Jahre vermehrt.

9. Wenn ich meine Waren auf Borg geben wollte, hätte ich genug Abnehmer für dieſelben.

10. Wie hoch belaufen ſich wohl die jährlichen Renten aus Ihrem Hauſe?

II. Überſetzung in's Deutſche:—

(*a*) The Chairman (the French Ambassador) said it afforded him great satisfaction in testifying to the importance of the Chamber. Their duties were numerous, and they discharged them with devotion and a desire to serve French interests. The French Chamber of Commerce did not conceal their flag. They knew they were free-traders, and the interests they represented had a right to be attended to. In the course of the great inquiry which was every day going on in the Press they must be heard; but they must not wonder if other interests, equally important, and especially agricultural interests, claimed a certain amount of protection. He did not wish to seal their lips by arguing that free trade was not quite the fashion in France. He wished to say that opinion in France might be enlightened. He did not believe in dogmas in such matters. He thought that in such questions nothing but interest must be considered. In the economical history of nations protection was at times a necessity; whereas free trade was at other times the only way to welfare. England had made herself the herald of free trade in the world. Who knew if they would not see her some day under imperative circumstances turn to protection? France, a few years ago, desired to hear no more about treaties; yet she had concluded one last year with Italy, and now that the experiment had lasted twelve months they could congratulate themselves on the result of that agreement. Their duty was to improve commercial relations between England and France, and, by so doing, to bring closer together two nations which some people persisted in saying were unable to understand each other; whereas it was the interest of both to live on friendly terms. Frenchmen who settled in England fully appreciated the hospitality they enjoyed, and Englishmen

who went to France met there with real cordiality. Those who would visit the Exhibition would see a hospitable, hard-working, and peaceful nation. In the course of that meeting both nations would find new reasons for mutual respect. (*Daily Paper.*)

(*b*) FRANKFORT ON THE MAIN, *May* 2, 1900.

Mr. Henry Marsland, London.

DEAR SIR,—I duly received your favour of the 10th inst., and am as glad as you are that your efforts to introduce my patent have been so successful. As to your proposal to sell my patent rights for Great Britain, I have no objection if you are assured that it will prove advantageous to all concerned. I therefore accept your offer of £3,000 cash on the 1st of July next, and £3,000 in fully paid-up shares of the company which you propose to form—in all £6,000. I bind myself also not to sell my shares within three years of the formation of the company.

I will look out for a suitable man for you as foreman; the chief difficulty will be about the language. I will also run over to London myself and see the factory put into proper working order if you will kindly advise me when you are ready. Meantime, I remain,

Yours truly,

PAUL SCHMIDT.

(*c*) 1. I do not mind giving a higher price. 2. There will scarcely be any buyers. 3. Coffee is just now a bad article to sell. 4. I neglected charging postage. 5. Mr. S. has favoured me with your address. 6. My stock is too small to part with any portion of it. 7. An alteration has been made in the customs duties. 8. I would request you to see that the goods are carefully packed. 9. We have disposed of all we had on hand of this article. 10. We do not like to have anything to do with bills not payable direct.

III. Grammatikaliſche Fragen

1. Give the present, imperfect, perfect, and future perfect (first person singular only), (*a*) *active*, (*b*) *passive*, of verkaufen.

2. Form sentences, relating to commercial life, in which the following prepositions occur:—in (dative and accusative), ſeit, durch, wegen, mit.

3. Write out the ordinals from 1 *to* 10, and the cardinals from 11 *to* 21.

4. How, and when, do you decline the German for *two* and *three?*

5. Mention German nouns (with their meaning) showing the affixes =nis, =keit, =heit, =ſchaft, =tum, =ſal (add definite article); and adjectives in =bar, =haft, =ern, =lich, =ſam, fach.

6. Translate into German, with due regard to idiom:—

(*a*) He went away without bidding me good-bye.

(*b*) He said (that) he would come to me to-morrow morning. (Translate both with and without daß).

(*c*) I shall see him the day after to-morrow; *and*, The day after to-morrow I shall see him.

(*d*) Yesterday week, yesterday fortnight, this day twelve months.

(*e*) Half a yard, a pound and a half, two feet and a half.

IV. Dictat

[This passage is first read in order that candidates may catch its general purport; then slowly dictated, giving ample time to write it down in German writing; it is read a third time to give an opportunity of correcting and punctuating.]

1. Das Leben in den engen Gaſſen | der Stadt Kairo, | welche zum Schutze | gegen die brennenden Strahlen | der Sonne | meiſtenteils | mit dem Schirme | ausgeſpannter Tücher und Holzdecken | überdacht ſind, | die alle Gegenſtände | in ein ſeltſames Halbdunkel hüllen, | beginnt allmählich | jenen Anſtrich zu gewinnen, | der auf den reiſenden Abendländer | den unüberwindlichſten Reiz ausübt. | Die Läden, | eigentlich große, | viereckige, | kaſtenartige Löcher, | die an den Wänden der Häuſer | in dichten Reihen | nebeneinander fortlaufen, | öffnen ſich; | der Kaufmann, | ſeine glimmende Pfeife rauchend, | hockt auf einem Kiſſen | am vorderſten Eſtrich | ſeiner Bude. | Seine Waren, | die in buntem Wirrwarr | im Hintergrunde derſelben | aufgeſtellt ſind, | müſſen den Käufer ſelber locken. | Der Beſitzer | preiſt ſie weder an, | noch fordert er | den Vorübergehenden auf. | Eifrig arbeiten | in den engen Räumen | ihrer Werkſtätte | die Handwerker, | ſich der einfachſten Inſtrumente | bedienend, | wobei die Füße und

Zehen | ebenſo flink und geſchickt | mitarbeiten | als die Hände und Finger, | die bei den Orientalen | von einer auffallenden Geſchicklichkeit | und Beweglichkeit ſind. |

Da iſt den ganzen Tag | ein Hämmern und Klopfen, | ein Klappern und Knarren, | ein Pfeifen und Schnurren, | ein Wackeln der Köpfe | und der Körper, | daß man meinen möchte, | die Heinzelmännchen | ſeien von Köln | nach Kairo | über's Meer gewandert, | und arbeiten nunmehr an dem Hauptorte des Islams. |

Brugſch: „Aus dem Orient."

ORAL

2. (*a*) *Conversation.* (Questions are *not* to be answered with „Ja" or „Nein" only.)

i. Welche Nummer haben Sie bekommen?

ii. Haben Sie jemals England verlaſſen?

iii. Wo und wie bringen Sie am liebſten Ihre Ferien zu?

iv. In welchem Geſchäfte würden Sie am liebſten arbeiten?

v. Nennen Sie mir einige Waren, die in England verzollt werden müſſen.

vi. Wie heißen die Inſeln an der Nordweſt-Küſte Frankreichs, die England gehören?

vii. Welche fremde Hafenſtädte kann man wöchentlich mit Dampfern von London erreichen?

viii. Durch die Fabrikation welcher Waren zeichnet ſich Birmingham aus? [Marks: maximum 60.]

(*b*) Translate into German, the Examiner reading the English:—

At three in the afternoon | he knocked at the door, | with trembling heart, | and entered the chamber. | When the father saw his lost boy, | he fell upon his neck | and kissed him, | and all the friends and relations gathered round, | with weeping eyes. | After the storms of war, | peace now returned, | and sorrow was passed away. [40]

PORTUGUESE

I TRANSLATION INTO ENGLISH

II. Grammatical Questions

1. As an illustration of the use of the article in Portuguese, translate the following examples:—

This young lady has a little mouth. My mother was a Spanish lady. The *Miser*, a comedy by Molière. Wine is sold one shilling a bottle. Is my face swollen?

2. *Nós*, *nos*. When are these personal pronouns to be used? Translate: Come with us. With both of us.

3. Write a few examples in Portuguese, using the verbs *ser* and *estar*.

4. State the indicative present and the subjunctive future of the following verbs: *pôr*, *trazer*, *ir*, *vêr*, *vir*.

5. What idea is conveyed in Portuguese by the compound of the present of the indicative? Translate: It has been raining since yesterday. Have you done?

6 Give the Portuguese translation of the following phrases:—

He wishes me to say the truth. Tell him to go away. I fear he is ill. I do not think he is at home. I think he is gone out. Choose an apartment where you will be comfortable.

III. Render into Portuguese:—

PARÁ, *6th April*, 1900.

A. Parrish, Esq., Hamburg.

DEAR SIR,—Permit me to introduce to you my intimate friend, Mr. José da Cunha Ramos, and claim for him a very kind and friendly reception.

Mr. Ramos is a talented young man, who, by his own efforts, has made himself a thorough master of several living languages. His health having been for some time in a delicate state, owing, probably, to a too ardent pursuit of his studies, the physicians have recommended him to travel for a few months in Europe. With this view my friend intends visiting France, Italy, and Holland, on his way to Hamburg, where he wishes to obtain a mercantile situation, should his health admit of his returning to business.

I most earnestly entreat you to afford him every assistance in your power for accomplishing his object, confessing that I expect more from your good offices, than from all the other letters of introduction he has been furnished with.

Fully persuaded that you will show my friend every kindness and attention, I beg to assure you that I shall consider myself highly obliged, and shall be most happy to have an opportunity of serving you in return.

Believe me, dear Sir,
Yours faithfully,
PINTO DE CARVALHO.

Render into Portuguese:—

1. We are about to charter a vessel for Bahia.
2. Please draw on us as usual for the amount of premium and insurance.
3. It is understood that you are to charge interest at the rate of 5 per cent. on all sums advanced by you.
4. Please let us know by return of post what we are to do.
5. Postages and petty charges amount to.....
6. Brazilian coffee fetched record prices in the market last week.
7. The Customs Tariff was forwarded to you last month.
8. Unless we hear from you to the contrary, we shall put the order in hand.
9. The summer auction sales have already commenced.
10. We are in receipt of your favours of the 30th ult. and 1st inst.
11. We shall thank you to send us, by an early mail, a power of attorney and bills of lading.

IV. DICTATION

The Examiner is requested:—

[*As for German above.*]

Ampère, o celebre professor de physica, fallecido em 1836, foi um dia convidado pelo sr. de Fontanes, reitor da universidade de Paris, para um jantar que este offerecia ao corpo docente d'aquelle estabelecimento scientifico.

Ao chegar a casa do reitor, notou que era elle o unico dos convidados que levava espada, e portanto tractou de a tirar disfarçadamente, e, sem que ninguem désse por isso, escondeu-a na sala de visitas debaixo das almofadas de um sofá.

Findo o banquete, voltaram os convidados á sala, acompanhados da dona da casa que se sentou no tal sofá, que servia n'aquella occasião de esconderijo á espada do sabio.

Como a noite se adeantasse, os convidados foram sahindo, uns após outros, ficando apenas Ampère, á espera de que o acaso lhe proporcionasse um ensejo propicio para rehaver a sua espada.

Madame de Fontanes, por certo aborrecida d'aquelle forçado *tête-à-tête*, acabour por adormecer. Então o sabio approxima-se pé ante pé, introduz cautelosamente a mão por baixo das almofadas, agarra o punho da espada, e puxa. Mas, ó—fatalidade!—a lamina sahe da bainha que fica entalada sob as almofadas, e madame de Fontanes, acordando estremunhada, e vendo diante de si um homen empunhando uma espada desembainhada, possue-se de um terror indiscriptivel, e grita por soccorro no auge da afflicção.

Acodem os creados, e acode o proprio marido, que se havia retirado aos seus aposentos, e pede explicações cathegoricas de tal *Attentado!*

No meio da confusão geral, o pobre sabio, muito compromettido com toda esta scena, desfaz-se em explicações. Ao ouvil-as, o grave sr. de Fontanes desatou a rir ás gargalhadas a ponto de chorar.

No dia seguinte contou a anecdota ao imperador Napoleão I., que tambem riu a bandeiras despregadas.

Por onde se prova que os heroes tambem acham graça ás *Boas Partidas*, tal qual como acontece aos simples mortaes.

(Sousa Cordeiro).

V. Oral

I sleep until seven o'clock, then I get up, dress and wash myself; I breakfast at eight o'clock; I take a cup of tea and eat a beefsteak; afterwards I go to my office and see what letters are there. I receive and write a great many. I remain there for several hours, and then I return to the house. Later on my Portuguese teacher comes and I take a lesson. He hangs his hat up on a hook and lays his books on the table. I read my exercises to him and he corrects them. He asks me questions and I answer, then we speak of different subjects. The lesson ends at noon, and I go to dinner. We sit down at table and talk during the meal. When we rise from table we carry some chairs into the garden, and there, in the open air, I take my coffee and read the newspaper. The afternoon I spend in taking a walk. The sun shines, but the wind blows, which softens the heat. When I return, I lie down and rest for a few minutes. In the evening I go to the concert and hear the music. Madame Patti is here and she sings most beautifully. When the concert is over, I go home and have something for supper. Towards midnight I go to bed.

COMMERCIAL HISTORY

Not more than EIGHT *questions are to be answered.*

1. Give a sketch of the Hansa, in its English relations, during the twelfth and thirteenth centuries.

2. Give a general account of the several Navigation Acts, and their effect, from the earliest date to the time of Queen Victoria.

3. Sketch the growth of English commerce in the fifteenth century.

4. Give the history of the Levant trade under Elizabeth and James I., leading up to the Bates case.

5. Give the history of the "Stop of the Exchequer" in the reign of Charles II.

6. What was the Methuen Treaty? Give some comment on its economic working.

7. Compare or contrast the "South Sea Bubble" and "Law's Mississippi Scheme."

8. It was said that Pitt (Earl of Chatham) was the first Minister who made Commerce flourish by war. Explain and comment on this.

9. Give some account of the slave trade (from the commercial point of view) during the eighteenth century, and the effects of its abolition.

10. Give the history, and examine the political effect of the commercial struggle brought on by Napoleon's Berlin and Milan Decrees.

11. Sketch the history of the repeal of the Corn Laws.

12. Give the detailed history of the commercial treaty with France in 1860.

OUTLINES OF POLITICAL ECONOMY

Not more than EIGHT *questions to be answered.*

1. Compare or contrast the advantages of the English and German systems of Technical Education.

2. Comment on the statement that "An increase of population is the most decisive mark of the prosperity of a State." Illustrate, limit, or confute.

3. Compare or contrast the advantages of Free and Slave labour.

4. State and illustrate the economic value of the general diffusion of intelligence among the people.

5. Comment on and illustrate the statement that "Labour does not produce objects but utilities."

6. Define "Capital," and explain its function in production.

7. Comment on the old legislation forbidding the export of gold and silver.

8. Discuss the causes of the changes in the value of money during the last four centuries.

9. Explain and comment on the terms "Natural Price" and "Market Price."

10. Explain and illustrate what is meant by a man's "wealth." What is meant by "Personal Wealth"?

11. The income derived from an advantageous situation is sometimes to be regarded as "rent," sometimes as "profits." Distinguish and illustrate.

12. "The chief cause of the modern prosperity of new countries lies in the markets that the old world offers, not for goods delivered on the spot, but for promises to deliver goods at a distant date."—MARSHALL. Comment on and illustrate this.

PHYSICAL AND COMMERCIAL GEOGRAPHY

Answer not more than SEVEN *of the following questions.*

1. With the aid of diagrams explain how the monsoons control the seasons of India and China.

2. With the aid of a sketch map state and explain the distribution of the rainfall in South America, and indicate the resulting distribution of the chief vegetable products.

3. Describe three available routes from London to Pekin, and discuss their relative advantages.

4. Describe precisely, with the aid of sketch maps, the position of Hamburg, Genoa, and Antwerp, and the character of their harbours. In your answer pay special attention to the lie of the great ocean ways, and to the manufacturing districts served by the ports in question.

5. What climatic conditions are needed for the successful cultivation of the vine? What are the chief wine-producing districts of the world? How far are their climates similar?

6. Carefully describe the position of the chief coal and iron districts of North America, paying special attention to the means of communication for bulky freight.

7. Give some account of the methods and possibilities of irrigation in (*a*) Egypt, (*b*) Mesopotamia, (*c*) India, (*d*) Australia, (*e*) South Africa, stating in each case the chief sources of water-supply.

8. What crops would you suggest for the newly opened Egyptian Sudan? Give your reasons carefully, having especial regard to climate, available labour, means of communication, and possible markets.

9. Give a careful account of the trade between Ireland and Great Britain, having regard to commodities, approximate values, and routes.

MACHINERY OF BUSINESS

Not more than TEN *questions to be answered.*

1. An order on a banker to pay a sum of money is sent you with the condition that the money is only to be paid on your signing, dating, and stamping the receipt form for the amount at the foot of the document. Is this a cheque? Give your reasons.

2. Define an Inland Bill of Exchange.

3. On dishonour of a Foreign Bill of Exchange what expenses is the holder of the Bill entitled to recover?

4. What are the principal influences that produce fluctuations in the sight exchange?

5. Compare a Bill of Lading with a Bill of Exchange as to their negotiability.

6. Distinguish between Particular Average and General Average.

7. State the principal points of agreement entered into in most Charter Parties.

8. What are the duties of the Committee for General Purposes of the Stock Exchange?

9. Describe the nature of a "Put and Call" option.

10. Of what annuities does the funded debt of the country consist?

11. What is the nature and use of Exchequer Bills?

12. Explain the following: Notice of Dishonour and Protest (of Bills), Usance, Bottomry, Salvage, Average Adjustment, Script, Bull and Bear (Stock Exchange).

COMMERCIAL LAW

Not more than TEN *questions to be answered.*

1. Give a list of some of the principal simple contracts which the law requires to be in writing.

2. In what different ways may a contract be terminated?

3. What are the provisions of the Gaming Act of 1845 as to gaming and wagering contracts?

4. Can money paid under an illegal contract be recovered?

5. Name the principal conditions implied in a contract of affreightment.

6. What persons may have an insurable interest in a policy of Marine Insurance?

7. Under a contract for the sale of goods, what lien for the price has an unpaid seller?

8. In how many ways may the acceptance of a Bill of Exchange be qualified?

9. A merchant A sells goods to B, not knowing at the time that he is only the agent of C, and B does not disclose the fact. Against whom may A proceed to recover the price when he discovers that B is C's agent?

10. When will an action for specific performance to sell securities be decreed by the Court?

11. What formalities are necessary as to the registration of a Bill of Sale?

12. Before the receiving order in bankruptcy, what transactions with a bankrupt are protected?

BOOK-KEEPING

1. Explain briefly the following terms: Exchequer Bills, Short Bills, Drawback, Royalty.

2. What do you understand by the "sectional" system of balancing Ledgers?

In the business of X, Y, Z & Co. the following books are in use:—1 "Bought" Ledger, 2 "Sold" Ledgers ("Town" and "Country"), 1 "Private and nominal" Ledger, 1 "Bank" Cash Book, 1 Petty Cash Book, 2 Sales Books ("Town" and "Country"), 1 Purchases Book, and 1 Journal. Explain briefly what alterations (if any) it would be necessary to effect in these books in order to introduce the "sectional" system of balancing.

3. The business of Bruce Bros. & Co. was registered as a Limited Company in 1897 with a nominal Capital of £400,000, divided into 4,000 shares of £100 each. 500 of these shares were issued as fully paid in part payment of the purchase price of the business. 3,200 of the remaining shares were allotted to the Public, and fully called up. 25 4½% Debentures of £1,000 each were also issued and taken up.

On December 31st, 1899, the following accounts remained open in the Company's Books:—Share Capital A/c, £320,000; Fully Paid Shares A/c, £50,000; Land and Buildings, £282,000; Sundry Creditors, £18,485; Investments, £8,450; Cash, £6,200; Preliminary Expenses A/c (Balance), £1,250; Goodwill A/c, £15,000; Calls in arrear, £525; Debenture A/c, £25,000; Stock A/c (31-12-99), £9,000; Plant A/c, £78,580; Sundry Debtors, £28,000; Reserve Fund, £8,000; Profit and Loss A/c (undistributed balance), £7,520. Prepare a Balance Sheet as on December 31st, 1899.

4. Set out below are extracts from the Cash Book (Bank columns only), and Bank Pass Book of J. Bull. Prepare a "Reconciliation Statement" as on December 31st, 1899.

CASH BOOK.

1899.		£	s.	d.	1899.		£	s.	d.
Dec. 1	To Balance	458	2	6	Dec. 2	By Wages	48	0	0
,, 4	,, J. Smith & Co	51	10	8	,, 4	,, Petty Cash	10	0	0
,, 7	,, Brown Bros.	104	8	6	,, 9	,, Self (Private)	100	0	0
,, 9	,, Geo. White & Son	44	18	4	,, 14	,, J. Tucker	284	2	9
,, 11	,, Buller & Co.	124	2	4	,, 16	,, Wages	51	0	0
,, 29	,, Plumer & Co.	98	0	2	,, 20	,, Cheque Book	0	4	2
,, 30	,, P. Methuen	208	16	4	,, 30	,, Chermside & Co.	41	0	10
,, 31	,, Cronje & Co.	84	14	9	,, 31	,, Salaries	35	0	0
					,, 31	,, Wages	49	0	0
					,, 31	,, Hunter & Co.	101	4	8
					,, 31	,, Balance c/d	455	1	2
		£1,174	13	7			£1,174	13	7

1899.
Dec. 31—To balance b/d £455 1 2

BANK PASS BOOK.

[J. Bull in A/c with the Blankshire Bank.]

1900.		£	s.	d.	1899.		£	s.	d.
Jan. 1	To Self	50	0	0	Dec. 31	By Balance forward	205	15	5
,, 1	,, Comn. on Scotch Draft (Plumer & Co.)	0	0	6	1900.				
,, 2	,, Hunter & Co.	101	4	8	Jan. 1	,, Plumer & Co.	98	0	2
,, 2	,, P. Carew	48	1	0	,, 1	,, Cronje & Co.	84	14	9
,, 3	,, Comn. on Scotch Draft (J. Dundonald)	0	0	3	,, 3	,, J. Dundonald	49	14	8
,, 3	,, Unpaid Draft (Cronje & Co.)	84	14	9	,, 4	,, P. Methuen	208	16	4
,, 3	,, Chermside & Co.	41	0	10	,, 6	,, J. Smith & Co.	48	13	6
,, 7	,, Wages	52	0	0					

5. At a recent examination the understated "Balance Sheet" was sent in by a Candidate. Have you any criticism to offer upon it?

BALANCE SHEET.

Messrs. A. & B. *Dec. 31st, 1899.*

ASSETS.	£	£	LIABILITIES.	£	£
Plant Account		4,000	A's Capital	3,000	
Debtors	8,200		Add Interest	150	
Less Reserve (31-12-99)	410				3,150
		7,790	B's Capital	2,000	
A's Drawings		300	Add Interest	100	
B's Drawings		200			2,100
Repairs		120	Creditors		9,800
Stock (1-1-99)	3,200		A's Profits		1,800
,, (31-12-99)	4,000		B's Profits		1,800
		7,200	Depreciation on Plant		200
Cash		420	Reserve for Debtors (1-1-99)		350
			Balance		830
		£20,030			£20,030

6. The books of Black & White, who are equal partners, are balanced yearly as on December 31st. Before profits are ascertained and divided, 5 per cent. interest is allowed upon Partner's Capital. Depreciation at the rate of 5 per cent. is written off the Plant Account, and a provision of 5 per cent. is made for Bad and Doubtful Debts. One year's interest, at the rate of 4½ per cent., is due upon the Loan on Mortgage, and has not yet been passed through the books. The Stock in hand, as on December 31st, 1899, was valued at £3,225.

The following are the final balances as on December 31st, 1899:—

	£
Purchases	16,450
Manufacturing Wages	2,150
Sales	24,800
Black's Capital A/c	5,000
Do. Drawings A/c (including Interest)	550
White's Capital A/c	2,000
Do. Drawings A/c (including Interest)	350
Stock (as on January 1st, 1899)	3,000
Salaries	820
Rates and Taxes	325
Trade Charges	400
Premium on Lease A/c (6 years unexpired as on January 1st, 1899)	2,400
Sundry Creditors	15,345
Loan on Mortgage	5,000
Freehold Land and Buildings	8,000
Plant A/c	4,000
Reserve for Bad and Doubtful Debts (as on January 1st, 1899)	600
Sundry Debtors	13,100
Cash at Bank	1,200

Prepare a Trading and Profit and Loss Account for the year ended December 31st, 1899, and a Balance Sheet as on that date.

APPENDIX III E

LIVERPOOL SCHOOL OF COMMERCE
UNIVERSITY COLLEGE

FRENCH COMMERCIAL

EASTER, 1900

1. Etablissez le compte de vente à :—700 barils de Vin de Bordeaux (de 200 litres chacun) arrivés à Liverpool par vapeur "Guienne," vendus à 3 francs le litre.

2. Ecrivez une lettre française annonçant l'exécution d'un ordre et son expédition, remettant facture et avisant d'une traite, et terminez en espérant qu'on sera satisfait des marchandises, etc.

3. Dites en Français, le plus brièvement possible, ce que vous savez des Banques et des opérations auxquelles elles se livrent.

4. *Traduire la lettre suivante :—*

LIVERPOOL, *March 16th*, 1900.

DEAR SIRS,—We beg to acknowledge receipt of your favour of the 25th ulto., and, after making inquiries, are glad to say we find that the firm you name is quite trustworthy. They have been established in this city, as commission agents, for over twenty years, and having always fulfilled their engagements enjoy a good reputation. You may therefore execute their order on their terms without the slightest hesitation.

We trust this information will be what you require, but are at your disposal if you should wish for any further particulars as regards the business of the firm referred to.

Yours truly,
A. C. EDWARDS & Co.

Messrs. P. Léonard & Nephew,
Dunkirk.

SPANISH

1. Translation into English.

2. Write out the first person singular of any irregular tenses of the following verbs, mentioning at the same time any other especially important irregularities in their conjugation: *renir, conducir, jugar, poner, caer, ir.*

3. When are temporal conjunctions followed by the subjunctive mood, and when by the indicative? What moods are required after the following conjunctions?

si, if.	*si*, whether.
como, as.	*como*, if.
siempre que, whenever.	*siempre que*, provided that.
para que, in order that.	*porque*, because.

4. Translate into Spanish: Which way shall we go? Suppose we go and see how they are getting on with the embankment at L. You don't mean it. It's much too far.——After all it is possible that I went the wrong way to work; we won't speak any more about it. It isn't that you went the wrong way to work, but that you hadn't any business to interfere at all.——We must not let him see how much he has put us out; he would crow over us terribly to his friends. You seem to take it more to heart than I do.——Has your father any definite wishes on the subject? No, he leaves the choice of a profession entirely in my hands. What a wide range is open to you! If I were you, I should be always building castles in the air.——A terrible cold kept her in bed. She was coughing, they said, in a most distressing way.

5. Translate into Spanish:—

GENTLEMEN,—We have duly received your favour of the 10th inst., inclosing invoice of 500 cases of fruit, amounting to

Ps. 2150,

which we have placed to your credit.

To balance this item, please draw upon us at three months' date, informing us of the sterling amount of your draft.

We have been for some days without any information with regard to the state of your market. This we much regret, as the arrivals of rice here have recently fallen off, and we are of opinion that a profitable speculation might be made in this article.

We remain, Gentlemen,

Yours, etc.

COMMERCIAL PRACTICE (DAY)

JUNE, 1900

1. Calculate and add the amount of 1½ per cent. on £2,347.

2. Show the usual custom in Liverpool how a lot of 200 bales of cotton is weighed, and tare calculated (iron bands 7 per bale).

3. Show how a payment for 200 bales of cotton is calculated if paid as follows:—

Invoice less $1\frac{1}{2}$ per cent, £1,643 10*s.*, due 15th June.

6th June, paid £300. Interest 5 per cent.
8th " " £450.
10th " " £325.
27th " " ?

4. Explain the following terms:—

1. A in Liverpool gives an order for 5,000 centals wheat to B in New York at 5*s.* sterling per cental, cost and freight, and make out invoice; freight calculated at $3\frac{1}{4}d.$ per 60 lbs., plus 5 per cent.

2. A in Liverpool gives an order for 5,000 centals wheat to B in New York at 5*s.* 2*d.* sterling per cental, cost, freight, and insurance, and make out invoice; freight as above.

Try to make out a draft for each invoice at sixty days on a Liverpool bank, date immaterial, and show how the Marine Insurance is calculated and managed by shipper.

COMMERCIAL PRACTICE (EVENING)

1st Problem:— EASTER, 1900

An exact calculation of a c.i.f. and 6 per cent. quotation in sterling given to an American house, rendered into the net American currency, with the proof of its correctness.

Given $4\frac{1}{32}d.$ c.i.f. and 6 per cent.
$\frac{1}{4}d.$ and 5 per cent. freight
Exch. 482.

2nd Problem:—

Complete working out of a consignment of 500 bags cotton from Galveston to Liverpool.

Given Liverpool quotation for Spot cotton, $4\frac{1}{4}d.$, and consignment taken with 10 per cent. margin. (Calculate c.i.f. and 6 per cent. price shipper can draw.)

" Failure of shipper to respond to further calls for margin.
" Consequent hedging operations in futures.
" Sale of Spot and covering of futures.
" Banking operations connected with it.
" Settlement of claim on Insurance Company for damage by Sea Water, and for total loss of part of cargo.
" Final statement showing claim on shipper for Short Proceeds.

(See student's working, lower down.)

COMMERCIAL CORRESPONDENCE

LENT AND CHRISTMAS, 1900

1. Justify the description of Commercial Correspondence as the "intellectual machinery of trade."

2. Enumerate as far as you can the points to be kept in view when writing a letter connected with (α) an offer of service, (β) an order for purchase, (γ) acknowledgment of receipt of goods.

3. Write an essay on *either:* The circumstances of the present day which favour British foreign trade, and the difficulties which beset it; *or*, The conditions of individual success in any modern department of business.

4. Supply a précis, in the form of a memorandum, of what you have written under No. 3.

5. Write a letter informing your friends that you have established yourselves as ....., with references to previous employment and to Bank Account. *Or*, Write a letter thanking N. N. for remittance of £500 as per a/c invoice rendered. Add short market report on wheat, and express your own opinion, also hope of further orders, etc.

COMMERCIAL ARITHMETIC

CHRISTMAS, 1900

1. Calculate following decimal percentages:—

$5\frac{2}{11}d. = 5.....d.$ decimals
Deduct $\frac{1}{4}d.$ plus 5 %
Add $\frac{1}{2}$ %
Deduct $3\frac{1}{2}$ %
" $1^{0}/_{00}$
" $5\frac{1}{2}$ %
Express result in cents @ 480.

Express the decimal in $\frac{1}{32}d.$ to the nearest fraction.

2. A Liverpool house receives an order for 100 bales cotton from the Continent
@ 47 pfennig per $\frac{1}{2}$ kilo.
Terms actual weight of bands plus 4 per cent. tare, etc., to pay for extra samples $27\frac{1}{2}$ kilos.

Calculate what price Liverpool can pay for 100 bales c.i.f. and 6 per cent. – 20^{40} exchange per £ net in sterling.

BOOK-KEEPING

CHRISTMAS, 1900

1. A Liverpool merchant wishes to engage a competent book-keeper, and, selecting an applicant, gives him the following problem to work out in his office then and there: Enter in the journal, ledger, and cash book, by double entry, the following transaction:—

1. A in Liverpool gives an order to Messrs. M. & Co., New York, for 25,000 bushels wheat, 5*s.* 6*d.*, c. and f., per cental (3*d.* and 5 per cent. per $60 freight).

2. Draft 60 d/s on a Liverpool bank; Marine Insurance in Liverpool.

3. Sale of the wheat to a Liverpool corn broker on the spot 6*s.* per cental, usual conditions.

4. Time in which wheat is held before sale left to the student to assume.

5. Balance sheet with profit and loss account, and transfer to capital account.

2. Explain how either loss or profit on exchange—apart from the result of any business—can occur if two merchants in Paris and London engage in business with each other in both markets.

APPENDIX III F

(See above, C.P. Advanced Evening, Easter, 1900.)

SECOND PROBLEM.

Consignment of 500 *B/Cotton to Liverpool.*

L'pool price—Mid. $4\frac{1}{16}$

or 10% *margin.*

Permission given to shipper to draw at 3·35*d. for Middling, for c.f. and* 6%.

10 *pts. on for Fully Mid., good colour, strong staple.*

Invoice of 500 *B/Cotton shipped from Galveston to Liverpool per Steamer, c.f. and* 6%.

500 *B/s wg.* 265,940 *lbs. Gross*

15,940 *less* 6%

250,000 *lbs. nett at* $3\frac{45}{64}$*d. per lb.* . £3,857 8 5

Less freight 265,940 *at* $\frac{3}{16}$*d. per lb. and* 5% . 218 3 0

£3,639 5 5

Draft on Bank of Liverpool 60 *d/s*

documents attached.

Galveston, 12*th Dec.,* 1899.

Insured in Europe.

Dec. 29.

Market falling rapidly, shipper was called upon for margin. Not responding, we cabled we would hedge against it, and we

Sold 600 *J/F at* 3·41.

Jan. 5.

Ship arrived. Captain reports that a quantity of cotton was thrown overboard owing to the vessel having taken fire.

Of our lot 20 *B/s total loss—thrown overboard.*

„ 100 „ *sea damaged.*

„ 380 „ *in good order.*

Jan. 5.

Paid G/A deposit £150. *Recovered from Insurance Co. No further mention made of this payment.*

Messrs. .....Insurance Co., Ld. *L'pool, Jan.* 12, 1900.

Drs. to .....

For loss on 100 *B/Cotton sea damaged, and for cost of repairing same.*

1,500 *lbs. wet*
500 *less* $\frac{1}{3}$
1,000 *lbs. nett at* $33\frac{3}{32}$ *per lb.* . 15 15 1
Dis. $1\frac{1}{2}$ 0 4 10 15 10 0

1900.
Jan. 12. *By Sale of Pickings*
1,500 *lbs. at* 2*d. per lb.* . . 12 10 0
0 3 10 12 6 0
£3 4 0

Charges.
To cost of repairing . . . 18 0 0
Less ordinary mending charges . . . 2 10 0 15 10 0
£18 14 0
Survey fee 1 1 0
E. & O.E. £19 15 0

Messrs. .....Insurance Co., Ld. *L'pool,* 12*th Jan.*, 1900.

Drs. to .....

For 20 *B/s Cotton total loss, thrown overboard. Insured under policy No.* 66,789,280 *for* £4,400.

20 *B/s at* £8 16*s. per bale*
E. & O.E. £176 0 0

Jan. 5.

Acceptance taken up under discount at 4%.
$\frac{1}{4}$% *Bk. comn. for accepting.*

BANK.

Rebate Statement. 5*th Jan.*, 1900.

Bill £3639 5*s.* 5*d., due* 13*th Feb.*, 1900.
£3,639 5 5
39 *days at* 4% . . 15 11 1
£3,623 14 4
$\frac{1}{4}$% *comn. for accepting* . 9 2 0
£3632 16 4

5th Jan., 1900.

Jan. 12. *Took in* 100 *B/s J/F at* 3·35.
„ 20. *Sold* 100 *B/s Spots at* 3·32, *and took in* 100 *Futures at* 3·20.
„ 30. *Sold* 100 *Spots at* 3·24, *and took in* 100 *Futures at* 3·12.
Feb. 10. „ 100 „ 3·16 „ 100 „ 3·8.
„ 15. „ 100 „ 3·16 „ 100 „ 3·10.
„ 20. „ 80 „ 3·24 „ 100 „ 3·20.
A/c made up to 16*th March.*

Statement of 300 *B/Cotton Jan.-Feb. delivery*, 1900.

1899.	*A/c*			
Dec. 29.	*Sold* 300 *at* 3·41 . .			2,115 15 0
1900.				
Jan. 12.	*Bought* 100 *at* 3·35 .	687 1 0		
„ 20.	„ 100 *at* 3·20 .	641 13 0		
„ 30.	„ 100 *at* 3·12 .	617 9 0		1,946 3 0
				£169 12 0
	Charges.			
	To Clearing House Stamps	0 3 0		
	„ *Brokerage* ½% . .	10 14 9		10 17 9
	Due Messrs.			£158 14 3

10*th Feb.*, 1900
E. & O.E.
L'pool, 31*st Jan.*, 1900.

Statement of 300 *B/Cotton February*, 1900, *delivery.*

1900.	*A/c*			
Feb. 10.	*Bought* 100 *at* 3·8 .	605 7 0		
„ 15.	„ 100 *at* 3·10 .	611 8 0		
„ 20.	„ 100 *at* 3·20 .	641 13 0		1,858 8 0
1899.				
Dec. 29.	*Sold* 300 *at* 3·41 . .			2,115 15 0
				£257 7 0
	Charges.			
	To Clearing House Stamps	0 3 0		
	„ *Brokerage at* ½% .	10 14 9		10 17 9
	Due Messrs.			£246 9 3

10*th March*, 1900.
E. & O.E.
L'pool, 25*th Feb.*, 1900.

Account Sales of 500 *Bales Cotton and Steamer.*

A/c Messrs. .....

1900.							
Jan. 20.	*By Sale* 100 *B/s*						
	50,000 *at* 3½*d. per lb.*	729	3	4			
		10	18	8	718	4	0
„ 30.	„ „ 100 *B/s*						
	50,000 *at* 3⅜*d. per lb.*	703	2	6			
		10	10	11	692	11	0
Feb. 10.	„ „ 100 *B/s*						
	50,000 *at* 3¼*d. per lb.*	677	1	8			
		10	3	1	666	18	0
„ 15.	„ „ 100 *B/s*						
	50,000 *at* 3¼*d. per lb.*	677	1	8			
		10	3	1	666	18	0
„ 20.	„ „ 80 *B/s*						
	40,000 *at* 3⅜*d. per lb.*	562	10	0			
		8	8	11	554	1	0
	„ *Claim* 20 *B/s*						
	Total loss, paid 5*th Feb.*				176	0	0
	„ *Claim for sea damage, paid* 5*th Feb.* . .				19	15	0
					£3,494	7	0

Charges.

Jan. 5.	*To Freight on* 480 *B/s* . .	209	8	6			
	„ *Dock and town dues,* 17-2-1	10	14	3			
	„ *Quay porterage* . .	6	15	5			
	„ *Marine insurance* . .	33	0	0			
	„ *Warehousing, delivering, sampling, etc.* . .	24	0	0			
	„ *Extra mending* . .	18	0	0			
	„ *Survey fee* . . .	1	1	0			
	„ *Fire insurance, two months at* 3*s.* %, £4,000 . .	12	0	0			
	„ *Rent,* 2,746 *weeks* . .	8	11	8			
	„ *Telegrams* . . .	5	0	0			
	„ *Interest on charges,* 42 *on* 285	1	12	9			
	„ *Commission at* 1% *on* £3,545	35	9	0	365	12	7
	Nett proceeds due Feb. 16*th,* 1900				£3,128	14	5
	Credit for pickings sold Jan. 12*th,* 1900 . .				12	6	0
	Nett proceeds due Feb. 16*th,* 1900 (*avg.*) . . .				£3,141	0	5

E. & O.E.

L'pool 1*st March,* 1900.

Messrs. X.Y.Z. & Co. in Account with A.B.C. & Co.

Date.		*Dr.*	*Cr.*	*Due.*	*Dys.*	*Interest to 16th Mar., 1900.* *Dr.*	*Cr.*
1900.				1900.			
Jan. 31.	*By diff. on 300 J/F* .		158 14 3	*Feb.* 10.	34		0 14 10
Feb. 25.	„ „ 300 *Feb.* .		246 9 3	*Mar.*10.	6		0 4 1
Mar. 1.	„ *Sale of 500 B/C* .		3,141 0 5	*Feb.* 16.	28		12 0 11
Jan. 5.	*To cash, retired bill* .	3,632 16 4		*Jan.* 5.	70	34 16 1	
*Mar.*16.	„ *Interest* . .	21 16 3					21 16 3
„	*By balance* . .		108 8 8				
		£3,654 12 7	3,654 12 7			£34 16 1	34 16 1
1900.							
*Mar.*16.	*To balance at your debit*	£108 8 8					

E. & O.E.

Liverpool, 16th March, 1900.

X. Y. Z.

INDEX

Ablett, Mr. T. R., quoted, 103
Account current, 215, 231
— sales, 231
Accounts, Manufacturer's, 221
— Import and export trade, 223
Accountants: those of English-speaking race regarded as good, 213
— as teachers of school book-keeping, 220
— Work in offices of chartered, 226
Accuracy, 252
Adams, Prof., quoted, 248
Adulteration, 248
Ad valorem duties, 179
Advertisements, Fulsome, 249
Affreightment, The contract of, 172
Agents, Commercial, 120
Algebra, 93
Americans, Business capacity of, 119
— Lessons to be learned from, 133, 247, 254
— compared with English, 249
Antwerp, The Commercial Institute at, 16
Apprenticeship, Commercial, 138
Arithmetic often badly taught, 92, 231
— Mental; 92
— Business, 93, 140, 231
— German school, 96
Armstrong, Prof., quoted, 97
Arrangement, Virtue of, 251
Association, International Commercial Education, 40
Austria-Hungary, Commercial education in, 9
Avebury, Lord, quoted, 249

Bacon, Lord, quoted, 92, 250, 251
Bagehot, quoted, 108, 129, 131, 134, 146
Balance of trade, 197
Banco modello, 20, 230
Bank Charter Act, 202
Bank-notes, 201
Bank of England, 201
Bank return, 205
Bankers, Distinguishing characteristic of, 192
— Profits of, 193
— supply good money, 193
Bankruptcy, 225
Banks, Service rendered to State by, 192
— in the U.S.A., France, Germany, 204
— Colonial and foreign, in London, 205
Barnett, Mr., on examinations, 53
— on Literature, 74
Barter, 143
Beaconsfield, Earl of, quoted, 247
Belgium, Commercial education in, 15
— Railway system of, 166
Berlitz schools, 80
Betterment, 185
Bill brokers, 196
Bills of exchange, 195, 234
— — Negotiation of, 195
— — Discount of, 195, 198
Bimetallism, 188
Birmingham, School of Commerce at Midland Institute, 34
— Commercial faculty of University of, 34
Bismarck, Prince, on the English national character, 244
Board of Education, 39
Bond, Goods in, 184
Book-keeping, Connection between credit and, 213
— of general importance, 67
— Goethe on, 216
— Educative value of, 217

Book-keeping, Unsatisfactory traditional instruction in, 217
— Single-entry, 218
— Double-entry, 219
— Manufacturer's, 221
— in model office work, 235, 239
Bounties, 182
Boyle, Sir Courtenay, quoted, 125
Bradford, Commercial department in grammar school at, 32
"Bread studies," 5
Bréal, Prof. Michel, quoted, 71
Bristol, School of Commerce at, 34
Brokers organise markets, 151
Bryce, Right Hon. James, quoted, 244
Buda-Pest, Training college for teachers at, 10
Buildings for factories, 131
Bureau, Commercial, 57, 63, 230
Business, Formulating principles of, 108
— enterprise, 109
— ability, 128
— Education obtained in, 252
— Entering into, on own account, 253
Buying and selling, Art of, 239
— — Ethics of, 248
— — Book of Proverbs on, 249

Calculus useful for study of Economics, 96
Canada, Commercial instruction in, 24
Canals, 171
Capital, 111, 129
— Mobility of, 112, 131
— Organisation of, 122
— Amalgamation of, 123
— must be conjoined with skill, 254
Career, Choice of a, 250
Carlyle on classical schools, 245
Carriage, The contract of, 164
Carrying trade, The, 163
Cash statement, 232
Chain rule, 94
Chambers of commerce, 155
— of trade, 159
— of shipping, 173
Character, Trade specially tries, 243
Character must be maintained throughout, 255
Chemistry, 97
Cheques, whether money, 199
Chicago, College of Commerce and Politics at, 22
"C.i.f.," 233
Citizenship, 245
Clerical duties in factories, 134, 138
— — in coffee merchant's office, 156
— — in timber agent's office, 157
— — in railway offices, 168
— — in shipping, 173
— — in marine insurance, 174
— — in custom-house, 185
— — in banks, 206
— — in stock and sharebroker's office, 208
— — in life and fire insurance offices, 210 f.
— — chartered accountant's office, 226
Climate, 130
Cockerton, The Queen *v.*, 46
Cohn, Prof. G., 42, 56
Colleges, Commercial, 58
— — Governing body of, 58
— — Endowment of, 61
— — Equipment of, 61
— — Dr. Wormell on, 65
"Combines," 123, 167
Commerce, 145
— a profession, 5
Commercial education, Problems of, 5
— — needed for management of industrial business, 2, 4, 128
— — Comparison between classical and, 245
— universities, 9, 12, 19, 25
— museums, 23
— revolution, 27
— schools, Need of special, 43, 54
— practice, 51, 57, 63, 228
— — Language study in connection with, 232, 236
— subjects, What are purely, 66
— language instruction, 84
— science, teaching of, analogous to that of natural science, 99, 229
— law, 147, 160

Commission agents, 145, 151
Commodities, Study of, 101
Common sense, Magnifying of, 108
Competition, its bearing on commercial education, 4
— special feature of present time, 119
— Free, 152, 245
— Ethical aspect of, 248
Composition, English, 75
Conference rates, 173
Congress on commercial education at Paris, 14
— — at Antwerp, 17 f.
Conscience, Training of, 247
Consignments, 151
Consular reports, 119
Consuls, 155
Contentment, 248
Continuation classes, 45
Co-operation, 124, 137, 159
Correspondence, English, at school, 84, 229
— Foreign, at college, 239
— Regularity in, 251
Cost accounts, 135
Cost of production, 135, 148
County Councils, Administration of funds by, 2, 32
Courtesy, 252
Credit, element in business, 114
— Economic functions of, 191
Crises, Commercial, 204
Crockett, Mr., quoted, 216
Currency, Standard of, 188
— Foreign, 199
— Forced, 202
Custom-house, Routine at, 184
Customs and Excise Act, 2
Customs Union, 184

Debt, Contract of, 214
Decalogue, Bearing on business of the, 247
Decimal money, 93
Definition, Instruction not to begin with, 110
Defoe, quoted, 249
Delbos, M., on reading French novels, 71
Demand, 115
— Equation of international, 153
Depression, Trade, 204
Dictation, 72, 83
— for correspondence, 240
Diminishing returns, Law of, 134
Discounts, 156
Douglas, Prof., quoted, 120
Drawing, Educative value of, 102
Dunn, Dr., quoted, 81
Duties (taxes), 176

Ecclesiastes, Book of, quoted, 246
Economics as school subject, 109
— in higher commercial education, 128
Edinburgh Commercial Education Committee, 38
Education, Liberal commercial, 1, 41
Elocution, 76
Employer as undertaker, 112
Establishment, A commercial, 146
Euclid should be discarded for Continental geometry, 95
Examinations, 28, 53
Exchanges, 151
— cp. under "Foreign"
Exhibition of work, 64
Expenses, Establishment (fixed), 132
— of production, 136
Export duties, 181

Faculties of commerce, 65
Failure, Statistical tables of causes of, 255
Farrer, Lord, definition of trade, 143
Fawcett, Prof., on inducement to save, 113
Females, Commercial instruction for, 9, 14, 18
Fielden, Mr. T., quoted, 122, 133
First grade schools, 49
Foreign trade, Methods of developing, 156, 161
— exchanges, 197
Foxwell, Prof., on Fluctuations, 149
— on Speculation, 150
France, Commercial education in, 12
— Railway system of, 166
Franklin, Benjamin, quoted, 250, 254

Free on board, 233
Free trade, 182
Freedom, Economic, 111, 152
Freight, Competition in rates of, 173
French, School, 85
— use in commerce, 240
Freytag, G., quoted, 70

Genoa, The commercial school at, 19
Geography, Teaching of, 101
— Physical, 100, 130
— Industrial, 130
— Commercial, 160, 171
Geometry, Educative value of demonstrative, 95
— Practical, 95
German Empire, Commercial education in the, 6
— — Railway system of the, 166
German, School, 78
— use in commerce, 240
Germans, Business capacity of, 119, 128
— Lessons to be learned from, 134, 161
Gladstone, Mr., on Education, 1
Glasgow, Athenæum Commercial College at, 38
Goethe, quoted, 85, 100, 134, 216, 247
Gold, Market value of, 189
— Mint price of, 189
Goods, technical term, 110
Goschen, Viscount, on intellectual interest, 1
Gouin series method, 80 ff.
Government and commercial education, 39
Grammar, English, 72
Guarantee, 215

Hall, Bishop, quoted, 248
Hamburg Chamber of Commerce, Attitude of, 55
Handwriting, 76
Hemelryk, Mr. P. E. J., quoted, 237
Heriot-Watt College, Commercial course at, 37
Higher elementary schools, 14, 44
"Higher elementary minute," 46
History, Industrial, 141
— Prof. Prothero on teaching of, 141
History, Commercial, 160
Honesty, 248
Horace, quoted, 84
Huxley, Prof., quoted, 102

Idioms, Dr. Sweet on, 83
Import duties, 181
Incidence of taxes, 177
Income, The National, 117
Increasing returns, Law of, 130, 134
Index numbers, 149
Insolvency, 225
Inspection, 32, 39, 52
Institutes of commerce, 58
Insurance, Marine, 174
— Life, 210
— Fire, 211
— Certificates of, 233
Interest, Conception of, 116
— Rate of, 193
— Gross, 194
— Net, 194
— History of, 194
— Calculation of, 231
— Red, 231
Intermediate schools, 46
Invoices, 138, 214, 231
Irish Intermediate Educational Board, 38
Isaiah the Prophet on regeneration of commerce, 245
Italian, use in commerce, 240
Italy, Commercial education in, 18

James, Prof., quoted, 10
Japan, Commercial education in, 24
Jevons, Prof, quoted, 132
Jobbers, 145

Keltie, Mr., on Physical Geography, 100
— — on Commercial Geography, 160

Labour, Mobility of, 111, 131
— Division of, 111, 133
— as determining localisation, 130
— Hours of, 159
(See also under "Work")
Labour-saving appliances, 133
Lancashire and Cheshire Institutes, Union of, 33

Lantern slides, 100
Latin as school subject, 46, 86
Law based on economic principles, 147
— International, 160
— Mercantile, 160
Léautey on Mechanics, 98
— on Preliminary Instruction, 107
— on Commercial History, 160
Legislation, Industrial, 141
— Railway, 165
Leipzig, Commercial institute at, 6
— Faculty of commerce at, 8
Letters: copying, docketing, 138, 140
Lexis, Prof., on study of commodities, 102
Liberty, Natural, so-called, 245
Literature, English, 73
Little things, Importance of, 252
Liverpool, School of Commerce at, 230
Loans, National, 192
— Foreign, 208
Localisation of industry, 130
Locke on study of grammar, 72
Logic, as school subject, 75
London Technical Education Board, 3
— Chamber of Commerce, 28
— University College School, Commercial Department, 29
— School of Economics, 30
— Port of, 172

Machinery, Economic aspects of, 132 f.
Magnus, Sir P., on organisation, 50
Manchester, Evening commercial school at, 33
Manufacturer, Aptitude of a, 129
Market, Conception of a, 114
— A perfect, 207
Marshall, Prof., on Distribution and Exchange, 115
— — on Cost of Production, 136
Martineau, Dr. James, quoted, 246
Mechanics, 98
Mensuration, 96
Mercantile Theory, The, 182, 197
Merchants, 145
Metric system, 92, 121
Miall, Prof., quoted, 97 ff., 103, 230
Middlemen, 145
Milan, the Commercial University at, 20
Mill, J. S., on Efficiency of Labour, 132
— — on Cost of Production, 136
— — on Foreign Trade, 152 ff.
— — on Taxation, 178, 181, 183
Model office work at Prague, 10
— — at the École Pigier, 12
— — at Genoa, 20
— — in the U.S.A., 21
— — at Liverpool, 236
— — Language study in, 236
Modern Language Association, 85
Modern languages, Methods of teaching, 79
Moir, Mr. R. M., on letter-writing, 75
Money, Decimal, 93
— element in business, 114
— Knowledge of the characteristics of, 187
— measure of value, medium of exchange, 188
— Metallic, 188
— debasement, 188
— durability, 189
— Paper, 200
— Value of, 189, 194, 250
— Exchange of, 191, 197
Monometallism, 188
Monopoly, 150
— Government, 180
Montesquieu quoted, 27
Morality, Commercial, 243
Morris, Mr. J. H., quoted, 103
Mother tongue, Study of the, 71
Müller, Prof. Max, quoted, 120
Muster Kontor, 230

Negotiable instruments, Nature of, 195
Neuere Richtung, in teaching of languages, 80
New York, Commercial education movement at, 23

Object lessons, Dr. Ziehen on, 84
Office, Organisation of a commercial, 145

Order, Sense of, 251
Orders, Dealing with, on receipt by manufacturer, 135

Palmerston, Lord, on handwriting, 76
Panics, 204
Paper currency, 200
— — in proportion to metallic circulation, 203
Paris, Commercial schools at, 12
Partnership, 146
— Industrial, 137
Passmore Edwards, Mr., Munificence of, 31
Passy, M., quoted, 83
Patten, Prof., quoted, 133
Pay day, 138
Percentages, 158
Philology, 72
Phœnicians, Rawlinson on character of, 251
Phonetics, 72
Physics, 97
Physiography, 99
Piecework wages, 137
Platt, Mr. James, quoted, 144, 161, 213, 252, 254
Ports, 172
Portuguese, use in commerce, 240
Prague, The Commercial Academy at, 10
Précis-writing, 75
Preece, Sir W. H., quoted, 128
Price, 147
— Influence of speculation on, 150
— — of transport on, 163
— — of credit on, 203
— Determination of, by supply of money, 190
— Rise and fall of, 190
Price, Prof. Bonamy, on examinations, 53
Prime cost, 135
Production, Study of, in economics, 128
— on large scale, 132
— Over-, 134
— influenced by transport, 157
Profit, element in business, 115
— Gross and nett, 115
Progress, 247
Promissory notes, 200
Protection, 182
— Temporary, 183
Proverbs, Book of, quoted, 249
Prussia, Commercial instruction in, 6, 9
Punctuality, 251

Railroads, 164
Railway Commission, The, 165
— practice, 167
Railways, 164
Reading, English, 72
Recitation, 76
Recreative pursuits, 251
Rein, Prof., on special method, 52
Rent, Conception of, 115
Reserve, Bank, 204
Retail trade not to be depreciated, 158
Risk, Indemnity for, 116
Rockefeller, Mr., founder of Commercial Faculty at Chicago, 22
Rothschild, Lord, Donation to School of Economics of, 32
Russia, Commercial education in, 20
— Railway system of, 166

Safford, Prof., on school algebra, 93
Salaries, 138
Sale, The contract of, 147
Sample Office, 230
Samuelson, Sir B., on special schools, 54
Saxony, Commercial instruction in, 6
Schiller, quoted, 249
Schmitz, Prof., quoted, 79
Scholarships, County Council, 3, 33
— French travelling, 13
— Belgian ,, 17
— Japanese ,, 26
Schoolmasters, Attitude of, towards commercial education, 4
Schools, Establishment of special, 43
— Higher Elementary, 44
— Intermediate, 46
— Equipment of, 48, 51
— Higher Secondary, 49
— Sir B. Samuelson on, 54
Science, Meaning of, 91
— Educative value of natural, 96

Science, Syllabus of elementary course, 97
Schumann, quoted, 103
Scotch Education Department, Regulations of the, 36, 74, 79, 93, 95, 103
Self-reliance, 247
Sharpe, Rev. T. W., on commercial instruction, 48
Shilling, Relation to sovereign of, 189
Shipping, 171
Shops, Hours of labour in, 159
Shorthand, 47, 67, 77
Silver, Price of, 189
— Depreciation of, 190
Smiles, Mr. Samuel, works of, referred to, 243, 247, 251
Smith, Adam, View taken of markets by, 151
Smith, Principal Armitage, quoted, 109
Socialism, State, 125
South of Scotland Chamber of Commerce, Commercial certificates of the, 37
Spanish, School, 85
— use in commerce, 240
Specialisation, 41
Specific duties, 179
Spectator, quoted, 213
Speculation, 118, 147
Spelling, English, 72
Spencer, Mr. H., on grammar, 72
Standardisation, 134
State, Regulation of business by the, 124, 141
— Railways owned or controlled by the, 166
— subsidies, 172
— as banker, 207
Statistics, Interpretation of, 149, 153
Staying power, 252
Steele, quoted, 92
Stock, use of term by Adam Smith, 112
Stock Exchange, Tendencies of, 192
Stock and share broker, Work in offices of, 208
Storr, Mr. F., on the Gouin method, 82
Strauss, M., quoted, 239
Students, Different grades of, 44
Supply, 115
Surplus products, American, 134
Switzerland, Commercial education in, 11

Tact, 252
Tare, 232
Taxation, Imperial, 176
— Local, 176, 185
— Maxims of, 178
— Proportional, progressive, graduated, degressive, 179
Taxes, Assessed, 176
— Direct, 177
— Indirect, 177
Teachers, Bavarian regulations as to, 8
— Training College at Buda-Pest, 10
— — — at Tokio, 26
— Holiday courses for, 9, 11
— Training and supply of, 14, 51
Teaching, Inspection of, 11
— General and special methods of, 52
— Heuristic, 97
Technical Instruction Acts, 2
Tender, Legal, 188, 215
Terminology, Acquisition of foreign commercial, 50
Tertiary education, 53, chaps. iv.–xi.
Text-books, Use of, 52
Thayer, Mr., quoted, 252
Theory, Systematised experience constitutes, 144
Thoroughness, 246
Time, Use of, 251
Time-keeping, 136
Token money, 188
Tokio, Commercial University at, 25
Tolstoi, quoted, 213
Trade, Theory of, 5, 144
— Home, 145, 229
— Wholesale, 145
— Retail, 145, 158
— Foreign, 152, 230
— Balance of, 153
— Depression of, 204
Traders, Criticism of commercial education by, 5
— Classes of, 145
Trade marks, Imitation of, 248
Trade policy, 181
Tradesmen, 145, 158

Transport(ation), Facilities of, 130
— Development of, 163
Traveller, The modern commercial, 119
Trigonometry, 96
Trusts, Commercial, 123, 150, 208
Truthfulness, 248
Typewriting, 62, 67, 77

Undertaker, 112
"Unearned increment," 180
United Kingdom, Commercial education in the, 27
United States, Commercial education in the, 21
— Railroad system of the, 166
Universities, Modern languages at the old, 85
University College School, 29
Usury, 194
Utilitarian instruction, 42, 70

Value, Conception of, 114, 147
Vanderbilt, Commodore, on education, 244
Venice, The Commercial Institute at, 19
Vienna, The Commercial Academy at, 10

Wages, Conception of, 116, 136
Walker, Prof., quoted, 129
Warehousemen, 145
Warehousing system, The, 184
"Wasters," 137
Wealth, Technical use of the term, 109
Welsh Central Board, 36
Whately, Archb., quoted, 108, 110
Work, The educative power of, 246
Wormell, Dr., on commercial colleges, 60, 65
— on teaching of arithmetic, 92

Yates, Mr., on American Consuls, 155
Yorkshire, Commercial education in the West Riding of, 32
Young Men's Review, quoted, 246

Ziehen, Dr., on study of commodities, 102

PLYMOUTH
W. BRENDON AND SON, PRINTERS

A LIST OF EDUCATIONAL WORKS PUBLISHED BY METHUEN AND COMPANY

PUBLISHERS : LONDON
36 ESSEX STREET
W.C.

CONTENTS

	PAGE
CLASSICAL	3
SCRIPTORUM CLASSICORUM BIBLIOTHECA OXONIENSIS	4
CLASSICAL TRANSLATIONS	5
WORKS BY A. M. M. STEDMAN, M.A.	6
SCHOOL EXAMINATION SERIES	8
METHUEN'S COMMERCIAL SERIES	9
HANDBOOKS OF SCIENCE	10
SCIENCE AND MATHEMATICS	11
TECHNOLOGY	11
TEXT-BOOKS OF TECHNOLOGY	12
METHUEN'S SCIENCE PRIMERS	12
GERMAN	13
HISTORICAL	13
GENERAL	14
UNIVERSITY EXTENSION SERIES	15

MESSRS. METHUEN WILL BE GLAD TO SEND PROSPECTUSES OF ANY OF THEIR SERIES; AND *BONÂ FIDE* TEACHERS MAY OBTAIN FREE SPECIMEN COPIES OF MANY OF THE EDUCATIONAL BOOKS, AND SPECIMEN COPIES OF OTHERS AT HALF THE PUBLISHED PRICE

MARCH 1901

NOTE

A COPY OF ANY BOOK IN THIS LIST CAN BE SEEN AT 36 ESSEX STREET, STRAND, W.C.; AND MOST OF THEM MAY BE CONSULTED AT THE LIBRARY OF THE TEACHERS' GUILD, 74 GOWER STREET, W.C.

MESSRS. METHUEN'S
EDUCATIONAL LIST

Classical.

The Nicomachean Ethics of Aristotle. Edited, with an Introduction and Notes, by JOHN BURNET, M.A., Professor of Greek at St. Andrews. Demy 8vo, 15s. net.

This edition contains parallel passages from the Eudemian Ethics, printed under the text, and there is a full commentary, the main object of which is to interpret difficulties in the light of Aristotle's own rules.

"This is both a scholarly and an original contribution to the study of the ancient Greek language and the ancient Greek philosophy. It is an original book in the sense of contributing to the study of the subject, not only mere learning and skill in summing up and expounding the results of the researches of prior scholars, but also fresh and illuminative ideas of the editor's own. It is an edition which reflects every credit upon its author's learning and critical acumen, and which cannot but prove heartily welcome to all classes of Greek scholars."—*Scotsman*

The Captivi of Plautus. Edited, with an Introduction, Textual Notes, and a Commentary, by W. M. LINDSAY, Fellow of Jesus College, Oxford. Demy 8vo, 10s. 6d. net.

For this edition all the important MSS. have been re-collated. An Appendix deals with the accentual element in early Latin verse. The Commentary is very full.

Plauti Bacchides. Edited, with Introduction, Commentary, and Critical Notes, by J. M'COSH, M.A. Fcap. 4to, 12s. 6d.

Taciti Agricola. With Introduction, Notes, Map, etc. By R. F. DAVIS, M.A., Assistant Master at Weymouth College. Crown 8vo, 2s.

Taciti Germania. By the same Editor. Crown 8vo, 2s.

Herodotus: Easy Selections. With Vocabulary. By A. C. LIDDELL, M.A., Assistant Master at Nottingham High School Fcap. 8vo, 1s. 6d.

Demosthenes against Conon and Callicles. Edited, with Notes and Vocabulary, by F. DARWIN SWIFT, M.A. Fcap. 8vo, 2s.

Selections from the Odyssey. By E. D. STONE, M.A., late Assistant Master at Eton. Fcap. 8vo, 1s. 6d.

Plautus: The Captivi. Adapted for Lower Forms by J. H. FREESE, M.A., late Fellow of St. John's, Cambridge. 1s. 6d.

A Greek Anthology. Selected by E. C. MARCHANT, M.A., Fellow of Peterhouse, Cambridge, and late Assistant Master at St. Paul's School. Crown 8vo, 3s. 6d.

New Testament Greek. A Course for Beginners. By G. RODWELL, B.A. With a Preface by WALTER LOCK, D.D., Warden of Keble College. Fcap. 8vo, 3s. 6d.

Exercises in Latin Accidence. By S. E. WINBOLT, Assistant Master in Christ's Hospital. Crown 8vo, 1s. 6d.

An elementary book adapted for Lower Forms to accompany the shorter Latin Primer.

Notes on Greek and Latin Syntax. By G. BUCKLAND GREEN, M.A., Assistant Master at Edinburgh Academy, late Fellow of St. John's College, Oxon. Crown 8vo, 3s. 6d.

Notes and explanations on the chief difficulties of Greek and Latin Syntax, with numerous passages for exercise.

Passages for Unseen Translation. By E. C. MARCHANT, M.A., Fellow of Peterhouse, Cambridge; and A. M. COOK, M.A., Assistant Master at St. Paul's School. Crown 8vo, 3s. 6d.

"We know no book of this class better fitted for use in the higher forms of schools." —*Guardian.*

Scriptorum Classicorum Bibliotheca Oxoniensis.

OXFORD CLASSICAL TEXTS, 1900.

Thucydidis Historiae. Libri I.–IV. By H. STUART JONES.

Limp cloth, 2s. 6d.

Platonis Opera. Tom. I. (Tetralogiae I.–II.). By J. BURNET. Crown 8vo, paper covers, 5s. ; limp cloth, 6s.

Lvcreti Cari de Rervm Natvra. By C. BAILEY. Crown 8vo, paper covers, 2s. 6d. ; limp cloth, 3s.

Cornelii Taciti Opera Minora. By H. FURNEAUX. Crown 8vo, paper covers, 1s. 6d. ; limp cloth, 2s.

Aeschyli Tragoediae cum Fragmentis. By A. SIDGWICK. Crown 8vo, paper covers, 3s. ; limp cloth, 3s. 6d.

Apollonii Rhodii Argonautica. By R. C. SEATON. Crown 8vo, paper covers, 2s. 6d. ; limp cloth, 3s.

Aristophanis Comoediae. Tom. I. By F. W. HALL and W. M. GELDART. Crown 8vo, paper covers, 3s.; limp cloth, 3s. 6d.

Xenophontis Opera. Tom. I. (Historia Graeca). By E. C. MARCHANT. Crown 8vo, paper covers, 2s. 6d.; limp cloth, 3s.

Classical Translations.

EDITED BY H. F. FOX, M.A.,

FELLOW AND TUTOR OF BRASENOSE COLLEGE, OXFORD.

Messrs. METHUEN are issuing a New Series of Translations from the Greek and Latin Classics. They have enlisted the services of some of the best Oxford and Cambridge Scholars, and it is their intention that the Series shall be distinguished by literary excellence, as well as by scholarly accuracy.

Crown 8vo. Finely printed.

Cicero. De Oratore I. Translated by E. N. P. MOOR, M.A., late Assistant Master at Clifton. 3s. 6d.

Aeschylus — Agamemnon, Chöephoroe, Eumenides. Translated by LEWIS CAMPBELL, LL.D., late Professor of Greek at St. Andrews. 5s.

Lucian—Six Dialogues (Nigrinus, Icaro-Menippus, The Cock, The Ship, The Parasite, The Lover of Falsehood). Translated by S. T. IRWIN, M.A., Assistant Master at Clifton; late Scholar of Exeter College, Oxford. 3s. 6d.

Sophocles—Electra and Ajax. Translated by E. D. A. MORSHEAD, M.A., late Scholar of New College, Oxford; Assistant Master at Winchester. 2s. 6d.

School Examination Series.

EDITED BY A. M. M. STEDMAN, M.A.

Crown 8vo, 2s. 6d. each.

This Series is intended for the use of teachers and students, to supply material for the former and practice for the latter. The papers are carefully graduated, cover the whole of the subject usually taught, and are intended to form part of the ordinary class work. They may be used *viva voce*, or as a written examination. This Series is now in use in a large number of public and private schools, including Eton, Harrow, Winchester, Repton, Cheltenham, Sherborne, Haileybury, Manchester Grammar School, Aldershot Army College, etc.

French Examination Papers in Miscellaneous Grammar and Idioms. By A. M. M. STEDMAN, M.A. Eleventh Edition.

A Key, issued to Tutors and Private Students only, to be had on application to the Publishers. Fourth Edition. Crown 8vo, 6s.

Latin Examination Papers in Miscellaneous Grammar and Idioms. By A. M. M. STEDMAN, M.A. Tenth Edition. **Key** (issued as above), 6s. net.

Greek Examination Papers in Miscellaneous Grammar and Idioms. By A. M. M. STEDMAN, M.A. Sixth Edition. **Key** (issued as above), 6s. net.

German Examination Papers in Miscellaneous Grammar and Idioms. By R. J. MORICH, Assistant Master at Clifton. Sixth Edition. **Key** (issued as above), 6s. net.

History and Geography Examination Papers. By C. H. SPENCE, M.A., Clifton College. Second Edition.

Science Examination Papers. By R. E. STEEL, M.A., F.C.S., Principal, Technical School, Northampton. In Two Volumes.

PART I. Chemistry.

PART II. Physics (Sound, Light, Heat, Magnetism, Electricity).

General Knowledge Examination Papers. By A. M. M. STEDMAN, M.A. Third Edition. **Key** (as above), 7s. net.

Examination Papers in Book-keeping. With Preliminary Exercises. Compiled and Arranged by J. T. MEDHURST, F.S.Accts. and Auditors, and Lecturer at City of London College. Sixth Edition. 3s. **Key**, 2s. 6d. net.

English Literature Examination Papers. Chiefly Collected from College Papers set at Cambridge. With an Introduction on the Study of English. By the Rev. W. W. SKEAT, Litt.D., LL.D., Professor of Anglo-Saxon at Cambridge University. Third Edition, Revised.

Arithmetic Examination Papers. By C. PENDLEBURY, M.A., Senior Mathematical Master, St. Paul's School. Fifth Edition. **Key**, 5s. net.

Trigonometry Examination Papers. By G. H. WARD, M.A., late Assistant Master at St. Paul's School. Third Edition. **Key**, 5s. net.

Examination Papers in English History. By J. TAIT WARDLAW, B.A., King's College, Cambridge.

Methuen's Commercial Series.

EDITED BY H. DE B. GIBBINS, LITT.D., M.A.

Crown 8vo, 1s. 6d. and 2s.

This Series is intended to assist students and young men preparing for a commercial career, by supplying useful handbooks of a clear and practical character, dealing with those subjects which are absolutely essential in a business life. At the same time, the requirements of a broad education, as opposed to mere cram, are kept in view; while each volume is the work of a practical teacher of his subject.

British Commerce and Colonies from Elizabeth to Victoria. By H. DE B. GIBBINS, Litt.D., M.A., Author of "The Industrial History of England," etc. Third Edition. 2s.

A Manual of French Commercial Correspondence. By S. E. BALLY, Modern Language Master at the Manchester Grammar School. With Vocabulary. Second Edition. 2s.

A Manual of German Commercial Correspondence. By S. E. BALLY. With Vocabulary. 2s. 6d.

A German Commercial Reader. By S. E. BALLY. 2s.

A French Commercial Reader. By S. E. BALLY. Third Edition. 2s.

A Commercial Geography of the British Empire. With special reference to Trade Routes, New Markets, and Manufacturing Districts. By L. W. LYDE, M.A., Grammar School, Bolton. Third Edition. 2s.

Commercial Examination Papers. By H. DE B. GIBBINS, Litt.D., M.A., Author of "The Industrial History of England." Papers on Commercial Geography and History, French and German Correspondence, Book-keeping, and Office Work. 1s. 6d.

The Economics of Commerce. By H. DE B. GIBBINS, Litt.D., M.A. 1s. 6d.

A Primer of Business. By S. JACKSON, M.A. Third Edition. 1s. 6d.

Commercial Arithmetic. By F. G. TAYLOR, M.A. Third Edition. 1s. 6d.

Précis Writing and Office Correspondence. By E. WHITFIELD, M.A. 2s.

A Guide to Professions and Business. By HENRY JONES. 1s. 6d.

The Principles of Book-keeping by Double Entry. By J. E. B. M'ALLEN, M.A. 2s.

Commercial Law. By W. DOUGLAS EDWARDS. 2s.

Other Volumes to follow.

Handbooks of Science.

EDITED BY PROFESSORS J. B. FARMER, M.A., F.R.S., AND W. WATSON, B.Sc., OF THE ROYAL COLLEGE OF SCIENCE, SOUTH KENSINGTON.

The Scientific Study of Scenery. By J. E. MARR, M.A., F.R.S., Fellow of St. John's College, Cambridge. With numerous Illustrations and Diagrams. Crown 8vo, 6s.

An elementary treatise on geomorphology—the study of the earth's outward forms. It is for the use of students of physical geography and geology, and will also be highly interesting to the general reader.

"Mr. Marr has produced a volume, moderate in size and readable in style, which will be acceptable alike to the student of geology and geography and to the tourist."—*Athenæum.*

The Principles of Magnetism and Electricity. An Elementary Text-Book. By P. L. GRAY, B.Sc., formerly Lecturer on Physics in Mason University College, Birmingham. With 181 Diagrams. Crown 8vo, 3s. 6d.

Science and Mathematics.

The World of Science. Including Chemistry, Heat, Light, Sound, Magnetism, Electricity, Botany, Zoology, Physiology, Astronomy, and Geology. By R. ELLIOT STEEL, M.A., F.C.S. 147 Illustrations. Second Edition. Crown 8vo, 2s. 6d.

"If Mr. Steel is to be placed second to any for this quality of lucidity, it is only to Huxley himself; and to be named in the same breath with this master of the craft of teaching is to be accredited with the clearness of style and simplicity of arrangement that belong to thorough mastery of a subject."—*Parents' Review.*

Elementary Light. By R. E. STEEL. With numerous Illustrations. Crown 8vo, 4s. 6d.

A South African Arithmetic. By HENRY HILL, B.A., Assistant Master at Worcester School, Cape Colony. Crown 8vo, 3s. 6d.

This book has been specially written for use in South African schools.

Test Cards in Euclid and Algebra. By D. S. CALDERWOOD, Headmaster of the Normal School, Edinburgh. In three packets of 40, with Answers. 1s. each; or in three books, price 2d., 2d., and 3d.

Agricultural Zoology. By Dr. J. RITZEMA BOS. Translated by J. R. AINSWORTH DAVIS, M.A., Professor of Zoology, University College, Aberystwyth. With an Introduction by ELEANOR A. OMEROD, F.E.S. With 155 Illustrations. Second Edition, with full Index. Crown 8vo, 3s. 6d.

Dairy Bacteriology. A Short Manual for the Use of Students. By Dr. ED. VON FREUDENREICH. Translated by J. R. AINSWORTH DAVIS, M.A. Second Edition. Crown 8vo, 2s. 6d.

Outlines of Biology. By P. CHALMERS MITCHELL, M.A. Illustrated. Crown 8vo, 6s.

A text-book designed to cover the new Schedule issued by the Royal College of Physicians and Surgeons.

Technology.

Ornamental Design for Woven Fabrics. By C. STEPHENSON, of the Technical College, Bradford; and F. SUDDARDS, of the Yorkshire College, Leeds. With 65 full-page Plates. Second Edition. Demy 8vo, 7s. 6d.

"The book is very ably done, displaying an intimate knowledge of principles, good taste, and the faculty of clear exposition."—*Yorkshire Post.*

The Construction of Large Induction Coils. By A. T. HARE, M.A. With numerous Diagrams. Demy 8vo, 6s.

Lace-Making in the Midlands, Past and Present. By C. C. CHANNER and M. E. ROBERTS. With 16 full-page Illustrations. Crown 8vo, 2s. 6d.